Official, No. 19.

QUARTERLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE

For 1873.

Published by the Authority of the Meteorological Committee.

LONDON:
PRINTED FOR HER MAJESTY'S STATIONERY OFFICE,
AND SOLD BY
J. D. POTTER, 31, POULTRY; AND EDWARD STANFORD, 6, CHARING CROSS.

1875.

PREFACE.

The present Volume of the Quarterly Weather Report only differs from its predecessors in its containing two extra Appendices. Of these the first is a reprint of a paper privately printed by George Dines, Esq., on the Rainfall of the London District for the past Sixty Years, with a graphical representation of the Results. The Committee are deeply indebted to Mr. Dines for the permission he has granted them to reproduce these valuable data for the Climate of London.

The other contains the first commencement of the publication of Actual Observations and of Annual Summaries from certain Stations of the Second Order, on the Scheme proposed by the Permanent Committee of the Vienna Congress for general adoption.

It has been determined to publish such Results, of good scientific character, as are in the Office for the year 1873.

Robert H. Scott.

June 1875.

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ERRATA.

Quarterly Weather Report, 1873.

Page 16, line 7, Halifax, March and Total, for – – read 3 90.
„ 19, Glasgow, Temperature, March, for 29°·1, 20th, 7 a.m., and 26°·0 „ 28°·6, 1st, 0 h. 2 m. a.m., and 26°·5.
„ „ Aberdeen, „ „ „ 31°·5, 14th, 7 a.m., and 19°·2 „ 28°·0, 1st, 1 a.m., and 22°·7.
„ 27, line 3 from bottom „ "Southall" „ "Ross."
„ 42, Temperature Table for August, Column of Minimum Readings. The mark (‡) should refer to Falmouth, not to Aberdeen.
„ 42, In remarks on the Temperature Table for August, line 3, for "amounting" read "amounted."
„ 44, Durham, greatest fall in one day, July, for 0·71, 22nd, read 0·83 on 3rd.
„ 68, Aberdeen, Mean Barometer for December, for 29·953, read 29·963.
„ 71, line 3, for "all" read "most."
„ 74, line 7, for "for" read "the."

APPENDIX I.

Page [2], Glasgow, Temperature, March, Time of Min., for 1st, 2 a.m. read 1st, 0h. 2m.

In consequence of errors (caused by the use of a wrong measuring-glass) in the Rainfall Averages for Stornoway given in the Quarterly Journal of the Scottish Meteorological Society, Vol. III., New Series, p. 256, the following corrections are necessary for the Rainfall Tables given on pp. 20, 32, and 44 of the Quarterly Weather Report, 1873:

	January.	February.	March.
Page 20, Stornoway—differences from averages read	+1·57	–2·78	–2·20
	April.	May.	June.
„ 32, „ (revised Table given in Part 3) „	–1·00	–1·08	–0·29
	July.	August.	September.
„ 44, „ differences from averages, „	+1·14	+0·94	–0·76

The values given in pp. 73, 74 (October to December and for the year) are correct.

QUARTERLY WEATHER REPORT,

1873.

Jan. 1. The year had hardly begun when the barometer at Valencia gave signs of the approach of a storm, which commenced about noon at that station, and soon after at Falmouth. Fig. 1. (Plate I.) for 6 p.m. on the 1st shows the conditions of pressure at that hour, which ranged from 30·2 ins. over Provence to about 29 ins. along our western coasts. The effect of the disturbance was evident at all the observatories on the night of the 1st, as is also apparent from the changed course of the isobars at 8 a.m. next morning (Fig. 2), but the main path of the depression was to the N.N.E.; the gale at the same time becoming much more general over the continent, while it had moderated on our western coasts. Aurora appeared in the north on the evening of the 2nd. The instrumental records of the gale are as follows:—

Observatories, Jan. 1, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	9 a.m. (1st).	S.E. by S.	11 a.m. (1st).	S.E. by S.	47	8	2 a.m. (2nd).	S.W. by S.	16	1 p.m. (1st).	S.E. by E.	57	Lull at 9 p.m. 1st.
Falmouth	1 p.m. (1st).	S.	4 p.m. (1st).	S. by E.	43	4	9 p.m. (1st).	S.W. by S.	8	5 p.m. (1st).	S. by E.	47	—
Holyhead	2 p.m. (1st).	S.	5 p.m. (1st).	S.S.E.	52	5	6 a.m. (2nd).	S.W. by S.	14	7 p.m. (1st).	S.S.E.	56	Lulled at 11 p.m. and midnight, S. by W.
Alnwick Castle.	9 a.m. (1st).	S.W. by W.	—	—	—	—	2 p.m. (1st).	S.W. by S.	5	Noon (1st).	W.S.W.	35	—
Yarmouth	11 p.m. (1st).	S. by W.	—	—	—	—	3 a.m. (2nd).	S.S.W.	4	1 a.m. (2nd).	S. by W.	37	—

At almost every observatory a strong southerly breeze was felt, but no serious gale anywhere.

The barograms show a recovery at all stations during the evening of the 2nd, which was checked at Valencia before midnight, while it continued in progress over England and France. Consequently Fig. 3 exhibits a totally fresh area of depression at 8 a.m. on the 3rd, which had taken the position of that of the previous day, while the isobar of 30·2 ins. is found over the south-west of France. These changes have produced steep gradients, that from Dover to Greencastle being as much as 0·09 in. per 50 miles.

A gale was reported from most of our western and northern stations, which was accompanied by thunder and lightning on the coasts of Ireland. Aurora appeared at night.

Observatories, Jan. 2-3, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	9 a.m. (2nd).	W. by S.	9 p.m. (2nd).	S.	49	13	6 p.m. (3rd).	S.W.	33	Midt. (2nd).	S. by W.	59	Freshened to 55 miles from S.S.W. from 4 to 7 a.m. 3rd.
Armagh	9 a.m. (3rd).	S. by W.	10 a.m. (3rd).	S.S.W.	42	3	2 p.m. (3rd).	W.S.W.	5	Noon (3rd)	S.W. by S.	44	—
Glasgow	6 p.m. (2nd).	S.W.	—	—	—	—	10 p.m. (2nd).	S.W. by S.	4	7 p.m. (2nd).	S.W.	35	—
	11 a.m. (3rd).	S.	1 p.m. (3rd).	S.	46	2	7 p.m. (3rd).	W.S.W.	8	2 p.m. (3rd).	S. by W.	50	—
Falmouth	2 a.m. (3rd).	S.W. by S.	—	—	—	—	4 p.m. (3rd).	W.	14	7 a.m. (3rd).	S.W. by S.	38	—
Holyhead	2 p.m. (2nd).	S.W.	2 a.m. (3rd).	S.	49	13	11 p.m. (3rd).	S.W. by W.	33	4 a.m. (3rd).	S. by E.	60	Above 50 miles from 3 to 5 a.m., and noon and 1p.m. 3rd.
Alnwick Castle.	3 p.m. (3rd).	S.S.W.	5 p.m. (3rd).	S.W. by S.	51	5	1 a.m. (4th).	W. by S.	10	6 p.m. (3rd).	W.S.W.	57	—
Kew	7 a.m. (3rd).	S.S.W.	—	—	—	—	2 p.m. (3rd).	S.S.W.	7	11 a.m. (3rd).	S. by W.	43	For one hour only.

We see from the photographic records on Plate I. that the disturbance assumed a much more marked character in its passage over Scotland than it had manifested at the Irish stations, the barometrical hollow at Glasgow and Aberdeen being very abrupt.

A brisk recovery is observable at all the observatories, except those in the south of England, on the night of the 3rd, which was again succeeded by a fresh fall and a recurrence of the gale, which blew at Valencia for a few hours, ceasing suddenly at 7 a.m. Fig. 4, for 8 a.m. on the 4th, shows us that while the depression of the previous day is just visible over southern Norway, the curve of 29·4 ins. skirts our western coasts, and gradients are steepest over the Bay of Biscay. We find, consequently, that the stiffest portion of the gale passed along the Channel, reaching its maximum at Falmouth about noon.

Observatories, Jan. 4, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	2 a.m. (4th).	S.E. by S.	3 a.m. (4th).	S.E. by S.	43	4	8 a.m. (4th).	S.W.	6	6 a.m. (4th).	S.E. by S.	46	—
Sandwick	1 p.m. (4th).	S.	3 p.m. (4th).	S.S.E.	41	3	8 p.m. (4th).	S. by W.	7	3 p.m. (4th).	S.S.E.	42	—
Falmouth	7 a.m. (4th).	S. by E.	9 a.m. (4th).	S.S.W.	46	8	8 p.m. (4th).	S.W.	13	1&2p.m. (4th).	S.S.W.	51	—
Holyhead	7 a.m. (4th).	S. by E.	9 a.m. (4th).	S.S.E.	45	2	5 p.m. (4th).	W.	10	9 a.m. (4th).	S.S.E.	45	—
Kew	Noon (4th).	S. by W.	6 p.m. (4th).	S.S.W.	41	5	Midnt. (4th).	S.W. by S.	12	8 p.m. (4th).	S.S.W.	44	—
Yarmouth	5 p.m. (4th).	S.W. by S.	—	—	—	—	11 p.m. (4th).	S.W. by W.	6	5 & 10 p.m. (4th).	S.W.	31	—

Jan. 5. The weather was comparatively calm in the morning, a general fall of 0·25 in. in the barometers on the eastern coast of Great Britain having caused the isobars to take an east and west course instead of that which they had previously maintained. The barogram at Stonyhurst shows much unsteadiness during the day, and in the afternoon pressure again rose briskly everywhere, while at night a slight depression passed over the northern observatories, which was quite inappreciable in the south of England (*see* Figs. 5 and 6, Plate II.). The oscillations of temperature which accompanied this disturbance in Scotland were especially remarkable, and very bright aurora was seen on the night of the 5th.

The effect of the change was, however, to bring on a gale which lasted longer than any of its immediate predecessors, continuing for nearly three days at Valencia and Holyhead, and culminating at the former station in a velocity of 69 miles an hour from S. at 11 p.m. on the 7th. It will be observed that at several stations two distinct gales were felt.

Observatories, Jan. 5-8, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	3 a.m. (5th).	S.	7 p.m. (5th).	S.	49	56	5 a.m. (8th).	S. by W.	69	11 p.m. (7th).	S.	69	Lulled for 5 hours, 1-5 p.m. 5th.
Armagh	1 a.m. (6th).	S.S.W.	—	—	—	—	10 p.m. (6th).	S.S.W.	15	5 a.m. (6th).	S.W.	38	Occasional lulls.
	11 p.m. (7th).	S. by E.	—	—	—	—	7 a.m. (8th).	S.S.W.	8	3 a.m. (8th).	S.S.W.	40	For one hour only.
Glasgow	3 a.m. (8th).	S.	4 a.m. (8th).	S. by W.	43	3	9 a.m. (8th).	S. by W.	6	5 a.m. (8th).	S. by W.	45	Reached 30 once on 5th, seven times on 6th, and four times on 7th, S.W.
Sandwick,	11 a.m. (5th).	W.S.W.	—	—	—	—	1 a.m. (6th).	W.S.W.	14	7 p.m. (5th).	W. by S.	38	Freshened to 30 at 9 and 10 p.m. 6th, W.S.W.
	5 a.m. (8th).	S.S.E.	9 a.m. (8th).	S.	45	3	3 p.m. (8th).	S.W. by W.	10	10 a.m. (8th).	S.S.W.	47	—
Falmouth.	11 p.m. (5th).	S.W. by S.	—	—	—	—	7 p.m. (6th).	S.S.W.	20	1&2 p.m. (6th).	S.W. by S.	38	—
	9 p.m. (7th).	S. by W.	—	—	—	—	5 p.m. (8th).	S.S.W.	20	Noon (8th).	S.S.W.	49	For one hour only.
Holyhead.	10 a.m. (5th).	S.W. by S.	Midnt. (5th).	S.W.	45	25	7 a.m. (8th).	S.S.W.	69	2 a.m. (8th).	S. by E.	58	—
			5 a.m. (7th).	S.	44	24							
Halifax	5 a.m. (6th).	S.W.	—	—	—	—	2 p.m. (6th).	W.S.W.	6	7 a.m. (6th).	W.S.W.	39	A lull for 3 hours about noon, 6th.
	Noon (8th).	S.S.W.	—	—	—	—	6 p.m. (8th).	S.W. by S.	6	1 p.m. (8th).	S.S.W.	40	For one hour only.
Alnwick Castle	8 p.m. (5th).	W.	9 p.m. (5th).	W. by S.	41	2	3 a.m. (6th).	S.W.	6	9 & 10 p.m. (5th).	W. by S.	41	Wind had been blowing freshly from W. earlier in the day, but backed and lulled.
	6 a.m. (6th).	S.W.	11 a.m. (6th).	S.W. by W.	46	9	10 p.m. (6th).	S.W.	15	1 p.m. (6th).	S.W.	53	Freshened again to nearly 40 miles, 2 to 5 a.m. 7th, S.W.

Plate II. shows us that the strong gale at Valencia, of which we have just spoken, was accompanied by a fresh depression of the barometer over Ireland, which became nearly obliterated on reaching Aberdeen, and is untraceable in England, where the barometer was falling steadily. This disturbance was also accompanied by an aurora visible in England.

The distribution of pressure at 8 a.m. on the 8th will be found on Fig. 7, where the gale is shown in the north of Scotland. On this day Capt. S. W. Freeman in the S. S. "Wisconsin," homeward-bound, in long. 39° to 26° W., reports his barometer as low as 28·75 inches at noon, and it continued below 29 inches for 48 hours, with very light winds. Apparently he ran with this area of low pressure on its passage eastwards, and it is interesting to see that it became partially filled up before it reached our coasts on the 9th.

Jan. 9. The conditions of the atmosphere this morning were not materially different from those given on Fig. 7. The barometer had given way more in England than in Scotland, so that the gradients for southerly winds had become reduced. Still, however, strong breezes from that quarter, and even slight gales, were reported from our southern stations (Plate II.), and for 14 hours, from 6 a.m., at Holyhead.

Jan. 10. The barometer, which had begun to recover at Valencia on the previous evening, now rose at all stations, especially in Scotland, and the change continued until about noon on the 12th in the west, while at Falmouth it lasted until about midnight on the 13th.

Meanwhile the barograph at Valencia fell during the afternoon of the 12th, and a slight depression passed over that observatory with a gale, which, however, was rather stiff at some stations and lasted for more than two days.

Observatories, Jan. 12-15, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	3 p.m. (12th).	S.S.W.	7 p.m. (12th).	S. by W.	49	9	3 a.m. (15th).	S.	60	Midnt. (12th).	S. by W.	55	Above 50 from 9 p.m. 12th to 1 a.m. 13th.
			11 a.m. (13th).	S.S.W.	41	35				1 a.m. (13th).	S.S.W.		
Armagh	6 p.m. (12th).	S.W.	—	—	—	—	4 a.m. (13th).	S.W.	10	1 a.m. (13th).	S.S.W.	37	—
Glasgow	8 a.m. (14th).	S.W. by S.	—	—	—	—	5 p.m. (14th).	S.W. by S.	9	2&4 p.m. (14th).	S.W. by S.	39	—
Aberdeen	Noon (14th).	S.W.	—	—	—	—	5 p.m. (14th).	W.S.W.	5	4 p.m. (14th).	W.S.W.	38	—
Sandwick.	8 p.m. (13th).	W.	10 p.m. (13th).	W. by S.	46	4	6 a.m. (14th).	W.S.W.	10	11 p.m. (13th).	W.	50	Occasional lulls below 40 miles an hour.
	2 p.m. (14th).	S.W. by W.	3 p.m. (14th).	S.W. by W.	44	3	9 p.m. (14th).	W.	7	3 p.m. (14th).	S.W. by W.	48	—
	5 a.m. (15th).	W.S.W.	6 a.m. (15th).	W.S.W.	44	5	1 a.m. (16th).	W. by N.	20	6 a.m. (15th).	W.S.W.	49	—

Observatories, Jan. 12-15, 1873.	VELOCITY, 30-40 Miles per Hour.		VELOCITY, Exceeding 40 Miles per Hour.				VELOCITY Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	MAXIMUM VELOCITY.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Falmouth	11 p.m. (12th).	S.W. by S.	4 a.m. (13th).	S.W.	41	9	7 p.m. (13th).	S.W.byW.	20	11 a.m. (13th).	S.W.byW.	48	—
Holyhead	5 p.m. (12th).	S.byW.	9 p.m. (12th). 6 a.m. (14th).	S.S.W. S.S.W.	43 47	10 10	11 a.m. (15th).	S.S.W.	66	8 & 10 a.m. (14th).	S.S.W.	50	Occasional lulls.
Halifax	3 a.m. (13th).	W.S.W.	—	—	—	—	8 a.m. (13th).	W.S.W.	5	5 a.m. (13th).	W.S.W.	39	—
	5 p.m. (13th).	W.S.W.	—	—	—	—	10 a.m. (14th).	W.S.W.	17	8 p.m. (13th).	W.	40	For one hour only.
Seaham	2 a.m. (13th).	S.W. by S.	—	—	—	—	8 a.m. (13th).	S.S.W.	6	4&6a.m. (13th).	S.S.W.	36	—
Alnwick Castle.	1 p.m. (12th).	W.byS.	7 p.m. (13th). 9 a.m. (14th).	W. by S. W. by S.	45 46	6 10	8 a.m. (15th).	S.W.	68	9 p.m. (13th).	W. by S.	52	—

It will be seen from Plate III. that the disturbance was much more serious in the north than elsewhere, and Fig. 8 shows us that the readings at 8 a.m. on the 13th ranged from 30·4 ins. over the whole south of France to 29·1 ins. at Christiansund, where the barometer had been falling for two days. At this hour the south-west gale was blowing generally over the south of England and the southern shores of the North Sea.

The course of the barograms at the Scotch stations was remarkably irregular, the small undulations shown at Aberdeen on the 13th and 14th being very striking, without sufficient changes in the wind to account for them satisfactorily.

Jan. 14. A decrease of about 0·15 in. over Spain, and a rise to a greater extent over England and the central portion of the North Sea, threw the isobars at 8 a.m. into the form exhibited on Fig. 9, where the gales shown are much more local than on the previous day. The strongest wind in the north of Scotland was in the afternoon of the 14th, when the force of 10 from W.S.W. was reported from Stornoway.

The next two days were comparatively calm, but on the 16th the barometer began to give way in the north, and by 8 a.m on the 17th (Fig. 10, Plate IV.) an area of depression had made its appearance outside Cape Wrath. At the same time a special small dip is noticeable at Valencia, causing a gale of about three hours' duration.* At Holyhead and Sandwick also strong breezes were reported, the direction at the latter station as well as in the Shetlands and on the Norwegian coast being E.S.E., showing that the polar current was endeavouring to force its way westwards. Aurora appeared in the north on both nights. During the afternoon of the 17th a rise of the barometer is observable everywhere except at Kew, but before midnight a most serious reduction of pressure set in at Valencia and speedily extended to all the other observatories. Fig. 11 shows the conditions at 8 a.m. on the 18th, when the lowest isobar is that of 28·9 ins., lying along the Minch, and the area of highest readings 30·3 ins. is situated over Spain. The chief force of the gale was concentrated over Scotland, where the maximum velocity was attained about noon, but the storm was nowhere very severe. It was accompanied by much thunder and lightning with snow in several places. Aurora was visible on the nights of the 18th, 19th, and 20th.

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* Very unfortunately the direction pencil of the anemograph at Valencia became deranged on the 17th, and was apparently marking incorrectly up to Feb. 5. The error was not discovered until the plates had been engraved.

Observatories, Jan. 18-20, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	10 p.m. (17th).	—	1 a.m. (18th). 8 a.m. (20th).	— —	45 45	21 3	11 a.m. (20th).	—	61	7 a.m. (18th).	—	55	Direction doubtful, see note, p. 5. Velocity above 50 miles from 3 to 9 a.m. 18th.
Armagh	6 a.m. (18th).	S. by W.	—	--	—	—	1 p.m. (18th).	S.S.W.	7	10 & 11 a.m. (18th).	S. by W.	38	—
Glasgow	9 a.m. (18th).	S.	11 a.m. (18th).	S.	45	3	3 p.m. (18th).	S.W. by S.	6	11 a.m. (18th).	S.	49	—
Aberdeen	9 a.m. (18th).	S.S.W.	—	—	—	—	3 p.m. (18th).	S.	6	Noon (18th).	S. by E.	50	For one hour only.
Sandwick.	5 a.m. (18th).	S. by W.	10 a.m. (18th).	S.	47	4	3 p.m. (18th).	S. by W.	10	Noon (18th).	S. by E.	51	—
	6 a.m. (19th).	W.	—	—	—	—	1 p.m. (19th).	W. by S.	7	6 a.m. (19th).	W.	37	—
Falmouth	11 a.m. (18th).	S.W. by S	4 p.m. (18th).	S.W. by S.	46	15	1 a.m. (20th).	W. by N.	38	2 a.m. (19th).	W.S.W.	52	—
Holyhead	5 a.m. (18th).	S.S.W.	7 a.m. (18th).	S.S.W.	47	17	4 a.m. (20th).	W. by S.	47	1 p.m. (18th).	S. by W.	61	Above 50 from 9 a.m. to 3 p.m. 18th.
Stonyhurst	11 a.m. (18th).	S. by W.	1 p.m. (18th).	S. by W.	42	6	11 p.m. (18th).	S.S.W.	12	3 p.m. (18th).	S.	46	—
Moorside	Noon (18th).	S.S.W.	1 p.m. (18th).	S.S.W.	44	8	Midnt. (18th).	S.W. by S.	12	6 p.m. (18th).	S.S.W.	52	—
Seaham -	Noon (18th).	S.	—	—	—	—	10 p.m. (18th).	S.	10	3 p.m. (18th).	S. by W.	37	—
Alnwick Castle.	2 p.m. (18th).	S. by W.	—	—	—	—	1 p.m. (19th).	W.S.W.	16	11 a.m. (19th).	W.S.W.	38	A lull from 7 p.m. 18th to 1 a.m. 19th, direction south-south-westerly.
Kew -	7 p.m. (18th).	S.S.W.	—	--	—	—	6 a.m. (19th).	S.W. by S.	11	9 p.m. (18th).	S.S.W.	37	—
Yarmouth	7 p.m. (18th).	S.W. by S.	—	—	—	—	7 a.m. (19th).	W.	12	Midnt. (18th).	S.S.W.	38	—

The depression continued to make rapid progress, and the fall of the barometer during the next 24 hours was about equal in amount to that which occurred November 21, 1869 (Quarterly Weather Report, 1869, p. 95); the area of fall exceeding 0·9 in., extending over Great Britain and the North Sea, in fact over an entire "ten-degree square," while it amounted to more than an inch at most of the stations, and even to 1·14 ins. at Dover! It will be seen from Plate IV. that the barographs both at Stonyhurst and Glasgow had not been allowed sufficient range of illumination to meet such an extraordinarily low reading.

The absolute minima, corrected to sea level, as registered at each of the other observatories on the 20th, were as follows:—

Valencia	28·295	8 a.m.
Armagh	·264	1 a.m.
Aberdeen	·146	4 a.m.
Falmouth	·542	6 & 7 a.m.
Kew	·474	1 a.m.

At Glasgow the lowest standard reading was 28·222 at 8 p.m. 19th, and at Stonyhurst 28·377 at 10 a.m. 20th.

Fig. 12, for 8 a.m. on the 19th, shows the centre of depression still outside the north coast of Scotland; but owing to the general reduction of pressure the gradients were so slight over the United Kingdom that the wind was exceedingly light except at Valencia, while in the Bay of Biscay, over France, and on the south and east shores of the North Sea a furious storm was raging.

Jan. 20. (Fig. 13.) The area of depression had made further progress, and its centre was now apparently located over the Moray Firth. The weather here was still calm, and the gales in Norway had died down, but they still continued in France and Germany and had extended over the whole of the former country. In the afternoon a general recovery set in except at Kew.

Jan. 21. The increase of pressure had been very brisk excepting over Luxembourg, and possibly central Germany, where there had been a slight fall, so that the chart for this day shows the isobar of 28·6 inches encircling Aberdeen, while that of 28·7 is an elongated oval stretching along the east coast from the Shetlands down to Brussels.

Fresh N.W. winds were reported at most of our stations. In the afternoon a new depression showed itself nearly simultaneously at the Irish stations, and, as we see from Plate V., advanced rapidly across the west of England, the rise of the barometer at Aberdeen being hardly affected by it. The centre of the disturbance was situated near Holyhead on the 22nd at 8 a.m. (Fig. 14), and slight gales were blowing on all except its northern side, where the readings were still so low that no gradients for east winds could exist. The only stations at which the velocity reached that of 40 miles were Holyhead and Falmouth, in both cases about midday.

Fig. 15 shows the only remains of this system of disturbance, at 8 a.m. on the 23rd, in the isobar of 29·2 ins. over North Germany, where the barometer at Hamburg showed a slight fall during the previous night. It is evident from this that the depression became gradually filled up on its advance eastwards. The fresh and very brisk recovery which had set in on the 22nd, was only interrupted by the passage of a new depression along our south-west coasts during the evening of the 23rd, which is hardly traceable at any of the northern observatories, while it is far more serious at Falmouth than elsewhere.

Fig. 16, for 8 a.m. 24th, shows that the centre of the depression lay over Brittany at that hour, about 5 degrees south of the position occupied by its predecessor of the 22nd. No gale of consequence accompanied this disturbance.

Jan. 25. We see that the disturbances were not yet at an end, for the Valencia barogram again shows a fall, as usual accompanied by an aurora, and on Fig. 17, Pl. VI., for 8 a.m. next morning, we find the isobars running in a north and south direction over the British Islands, while a fresh southerly gale is blowing in St. George's Channel, of which the instrumental record is as follows:

Observatories, Jan. 25 & 26, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	4 a.m. (25th).	—	6 a.m. (25th).	—	42	15	11 p.m. (25th).	—	19	6 p.m. (25th).	—	48	Direction doubtful, see note, p. 5.
Armagh	3 p.m. (25th).	S.S.E.	—	—	—	—	5 a.m. (26th).	S.S.E.	14	11 p.m. (25th).	S.S.E.	38	——
Aberdeen	9 p.m. (25th).	S.	—	—	—	—	3 p.m. (26th).	S. by E.	18	3 a.m. (26th).	S. by E.	38	——
Sandwick	Noon (25th).	S.	11 p.m. (25th).	S.	45	11	7 p.m. (26th).	S.	31	3 a.m. (26th).	S.S.E.	52	——
Falmouth	4 p.m. (25th).	S. by E.	—	—	—	—	Noon (26th).	S. by E.	20	6 a.m. (26th).	S. by E.	41	For one hour only.
Holyhead	10 a.m. (25th).	S.S.E.	Noon (25th).	S.S.E.	48	28	10 p.m. (26th).	S. by E.	36	9 a.m. (26th).	S.S.E.	56	Above 50 from 8 p.m. 25th to 11 a.m. 26th (16 hours.)
Stonyhurst	11 a.m. (26th).	S.S.E.	—	—	—	—	3 p.m. (26th).	S.S.E.	4	Noon (26th).	S.S.E.	34	——
Alnwick Castle.	Midnt. (25th.)	S.	—	—	—	—	2 p.m. (26th).	S.	9	Midnt. (25th).	S.	34	Lulled from 6 to 10 a.m. 26th.
Yarmouth	9 p.m. (25th).	S.	—	—	—	—	11 p.m. (26th).	S.S.E.	26	7 a.m. & noon (26th).	S.	35	——

The next few days were comparatively calm, the only phenomenon of consequence which is noticeable being the gradual rise of the barometer over Russia and Scandinavia, while the winds on the eastern shores of the North Sea drew into the east. The existence of this high pressure over Denmark caused the slight depression of the 27th to take a northerly course, and the only gale of importance caused by it was at Sandwick on the 28th, where it lasted 19 hours from S. by E. At Yarmouth, too, a slight S.E. gale was felt.

Jan. 30. The barometer over the Gulf of Bothnia had almost reached the height of 30·8 ins., and the east wind began to attain the force of a gale at Yarmouth, and on the 31st the barograph at Valencia began to fall slowly, and the wind blew a moderate gale during the afternoon, which, however, lulled before midnight.

Feb. 1. By 8 a.m. the depression had manifested itself clearly on the west coast of Ireland, as is seen from Fig. 18, Pl. VII., while the barometer over Northern Europe was still rising, and easterly gales, drawing to south-east in St. George's Channel, had definitely commenced.

The barometer fell much more rapidly at Falmouth than at any other station, and by 8 a.m. on the 2nd (Fig. 19) it had reached the low level of 28·77 ins. at Scilly, while at about the same hour the maximum reading, 787·2 mm. = 30·99 ins. was observed at St. Petersburg, giving a total difference of nearly *two and a quarter inches* between these points.

It will not be devoid of interest to remark that the general drift of the wind over Northern Europe in a direct line from St. Petersburg to Scilly, as far as can be seen from the limited number of observations available, was generally easterly; although the direction in accordance with the gradient over the entire distance would have been decidedly south-east. In fact the depression shown on Fig. 19 was very limited in area, and had merely a local influence on the main current of air flowing out from the area of excessive pressure over Northern Russia.

The gradients in the immediate vicinity of the centre of depression were in places very steep, that from Brest to Scilly being as much as 0·20 in. per 50 miles. The instrumental records of the gale were as follows:

Observatories. Jan. 30 to Feb. 4, 1873.	Velocity, 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	Noon (31st).	—	2 p.m. (31st).	—	43	11	Noon (2nd Feb.)	--	39	6 p.m. (31st).	—	47	A lull below 30 miles from 5 a.m. to 1 p.m. 1st Feb. Direction of wind doubtful.
Aberdeen	5 a.m. (1st).	S.E. by S.	—	—	—	—	Noon (2nd)	S.E.	31	8 p.m. (1st).	S.E. by S.	40	—
Sandwick	8 a.m. (31st).	S.E.	7 a.m. (1st).	S.E.	41	5	11 p.m. (1st).	S.E.	35	9 a.m. & noon (1st Feb.)	S.E.	42	A lull from 11 a.m. to 2 p.m., 31st.
Falmouth	8 p.m. (31st).	E.S.E.	11 a.m. (1st).	E.S.E.	54	15	3 a.m. (3rd).	N. by W.	55	11 p.m. (1st).	E.S.E.	65	Above 50 from 4 p.m. 1st to 1 a.m. 2nd. Direction E.S.E.
			11 a.m. (2nd).	E. by N.	45	4							
Holyhead	8 p.m. (1st).	E. by S.	9 p.m. (1st).	E.	52	22	6 p.m. (4th).	N. by E.	70	10 a.m. (2nd).	E. by N.	65	Above 50 from 2 a.m. to 3 p.m. 2nd, and from 8 p.m. 3rd to 9 a.m. 4th.
			3 a.m. (3rd).	N. by E.	44	9							
			5 p.m. (3rd).	N. by W.	50	18							
Stonyhurst	10 p.m. (1st).	E.	—	—	—	—	9 a.m. (2nd).	E.	11	5 a.m. (2nd).	E. by S.	34	—
Moorside	6 p.m. (1st).	E.S.E.	—	—	—	—	2 p.m. (2nd).	E.	20	8 & 11 a.m. (2nd).	E. by S.	38	—
Seaham	3 p.m. (1st).	S.E. by E.	—	—	—	—	11 a.m. (2nd).	E.	20	3 a.m. (2nd).	S.E. by E.	37	—
	4 p.m. (3rd).	N. by E.	8 p.m. (3rd).	N. by W.	43	3	6 a.m. (4th).	N. by W.	14	10 p.m. (3rd).	N.	48	—

Observatories, Jan. 30 to Feb. 4, 1873.	Velocity, 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Alnwick Castle.	11 a.m. (1st).	S.S.E.	—	—	—	—	1 p.m. (2nd).	E.	12	1 p.m. (1st). 9 a.m. (2nd).	S.S.E. S.E.	35	A lull from 9 p.m. 1st to 3 a.m. 2nd and below 30 occasionally at other hours.
Kew -	11 p.m. (1st).	E. by S.	—	—	—	—	5 p.m. (2nd).	E.N.E.	18	5&8a.m. (2nd).	E.	36	——
Yarmouth	7 a.m. (30th).	E.S.E.	11 a.m. (31st). 8 a.m. (1st).	E. by S. E. by S.	43 47	11 41	3 a.m. (3rd).	E.	92	6,8,&11 a.m. (2nd).	E.S.E.	54	Above 50 from Midnight 1st to 5 p.m. 2nd.

The force of the wind was very great both at Holyhead and at Falmouth, where also the gale lasted longer than at any other station, except Yarmouth. It was accompanied by a very heavy fall of snow.

The rapidity with which the depression became filled up is very remarkable, for we see from Fig. 20 that at 8 a.m. on the 3rd its centre lay near the Straits of Dover, the lowest reading, 29·45 ins., being nearly 0·7 in. higher than that at Scilly on the previous day. As the storm passed off the wind drew into north, but the snowfall continued at most of the stations during the 3rd.

With this outbreak of polar wind the long period of almost incessant storms, which had lasted ever since the middle of November, came to an end, and was shortly succeeded by an interval of unusually high barometrical readings with consequent light winds.

Pressure began to give way over France on the 6th, and by the next morning fresh easterly winds were blowing in the Channel, which had increased to a gale at Yarmouth at 3 a.m. and lasted there for two days, blowing hardest (54 miles an hour) at 8 a.m. on the 8th. The only other stations at which this gale was felt were Seaham Harbour and Holyhead. At Falmouth the force did not rise above that of a strong breeze.

Meanwhile the excessive pressure over Northern Europe had disappeared, and a depression was approaching the north-west coast of Norway, causing N.W. gales on the 9th at Christiansund and Bodö, which assumed large proportions on the 10th, when its centre apparently lay near Haparanda.

Feb. 11. The barometer at Valencia had risen to 30·754 ins., and this elevation produced gradients for northerly winds over England, while at the same time a brisk decrease was setting in over the north of Scotland. This depression made rapid progress in a Southerly direction, the fall at Helder between the 11th and 12th having amounted to nearly half an inch, while at all, excepting our Scotch stations, it had exceeded 0·25 in. On the 12th the S.S. "Europa," Capt. A. Campbell, reported the high reading of 30·8 ins. in 20° W. and 54° N.

From this day the barometer began to rise slowly, but almost uninterruptedly, the winds being, for the most part, exceedingly light, and for the four days from the 16th to the 19th no rain was reported from any of the stations mentioned in the Daily Weather Report, if we except 0·02 in. at Stornoway on the 16th. No such thing had occurred for six months, viz., since the 15th of August.

Weather was cloudy throughout, except in the North, as will be seen from the marked contrast between the course of the Thermograms at Aberdeen and elsewhere. Plate X.

Barometrical readings reached their highest level on the 18th, on which day, as we see from Fig. 21, the curve of readings above 30·7 ins. enveloped the whole south of England, the reports from Nottingham, Cambridge and Brussels all showing the reading of 30·79 ins. The table at p. 17 shows that the absolute maximum reached was 30·825 about 11 a.m. at Kew, and that all the maxima, except at Valencia, were reached within two hours of each other.

During this period of abnormally high pressure over the United Kingdom a compensating area of low readings was apparently lying over the North of Norway, the lowest barometer, 28·78 ins., at Vardö being recorded at 8 p.m. on the 18th. As might be expected severe westerly gales prevailed all along the coast, north of Christiansund, until the 20th, and even affected Sandwick. On the 20th the barometer at Christiansund showed a fall of 0·40 in. within the 24 hours, while the gale, blowing from W.N.W., had extended to Skudesnaes and Oxö. At the same time a general decrease was observable here, and the area of highest readings shown on our chart had the shape of a broad band ranging from Valencia to Brussels, and from thence apparently down into Italy, to judge from the Bulletin International. Weather in these islands continued dry, but very foggy, until the 21st. Aurora was reported at the extreme northern stations on the 19th, 20th, and 21st.

Feb. 21. On this day, as will be seen from Plate XI., a general and extensive decrease set in at all the stations, being most serious in the North, and at the same time a sudden recovery appeared at the northern Norwegian stations, which was, however, very short-lived, for the fall recorded at Christiansund before next morning amounted to 0·81 in., but it was not accompanied by very much wind. At Sandwick the disturbance in passing had caused a westerly gale, which lasted from 3 a.m. 21st till 6 p.m. 23rd, averaging above 40 miles an hour for 25 hours, and reaching a maximum of 54 miles from N.W. at midnight on the 21st. The wind eventually drew to North, causing a rapid decrease of temperature, which extended to most of the stations, but was very irregular in its distribution; the very low readings of 12°·5 at Stonyhurst on the 24th, and 12°·7 at Aberdeen on the 25th, being unsupported by any of the other records. Snow fell heavily in some places on the 24th.

The fall of the barometer had become brisker at Valencia on the evening of the 24th, while a slight south-easterly gale was felt, and aurora was again reported from Wick and Thurso.

By 8 a.m. on the 25th the course of the isobars over these islands indicated the approach of a fresh area of depression to our western coasts, while the fact of the fall during the night having been greatest at Armagh showed that the centre of the disturbance would approach that station.

The most remarkable phenomenon connected with this disturbance was the sudden rise of the thermometer at Aberdeen at 6 a.m. 25th, which amounted to about 16° in a quarter of an hour, coinciding with a "back" of the wind from N.W. to S. by E.

At 3 a.m the wind at Valencia had again freshened to a stiff breeze from the southward, which increased to a slight gale and lasted throughout the day; a similar force being also felt at Holyhead and Sandwick.

The barograms at Valencia and Falmouth show that pressure began to give way rapidly about noon, and the general irregularity of the curves (Plate XII.) shows that a cyclonic area of rather unusual form was passing over. At night aurora was again seen at several stations and snow continued to fall.

Feb. 26. The isobar of 28·8 ins. exhibits a very remarkable curve (Fig. 22, Plate XII.) as the readings in the western counties of England are higher than might have been expected. Gales are reported from Brest as well as from the eastern shores of the North Sea. The depression passed off to the eastward, and by next morning had assumed an oval shape, its longer diameter stretching from the Helder to Skudesnaes, while fresh N. to N.W. winds were reported here.

The rise of the barometer was rapid at all stations, but it did not last long for by noon on the 28th the mercury at Valencia began to fall very briskly, and the minimum reading was reached about 9 a.m. March 1st (Fig. 23). A depression is clearly marked in all the barograms, but it seems more than likely that the disturbance which affected the Scotch instruments was in some degree distinct from that which passed over England, for Fig. 24 (Plate XIII.) shows us that at 8 a.m. on the 2nd readings were lowest over Caithness, but a deep bend in the isobar of 29·5 ins. indicates a local centre of depression over Belgium, with a south-east gale in Denmark, as if the larger disturbance were in process of being filled up. These oscillations were not accompanied by any serious wind, though the rainfall was locally very heavy, exceeding an inch at Roche's Point on Feb. 28.

The next few days were calm and do not call for special remark except that aurora was reported on the 2nd, 3rd, and 4th at the northern stations, and was especially brilliant, on the last evening, at Aberdeen.

March 6. The barograms again show a serious reduction of pressure, and its extreme unsteadiness is noticeable everywhere except at Glasgow (Plate XIII.). A slight southerly gale set in at Valencia and ended quite suddenly at 1 p.m., the wind veering to N.W. At Stornoway, too, a S.S.W. gale was reported at 8 a.m. The barograms at the English observatories (Plate XIV.) show a very remarkable oscillation on the 7th, which apparently moved in a north-north-easterly direction, for it is recorded at Stonyhurst, subsequent to its registration at Falmouth and Kew, and its effects were very much weakened by the time it reached Glasgow. The path of the centre of disturbance evidently lay over England, for the Irish observatories show that the influences which affected their readings were not nearly so serious. We find at 8 a.m. the reading at Holyhead below 29·2 ins. (Fig. 25), while southerly gales were reported from the east coast. The force of the gale was nowhere very severe. It was felt at Holyhead and Sandwick, in addition to the stations already mentioned. At Holyhead it blew with a velocity of 52 miles an hour from N.W. by N. at noon, with a very heavy fall of rain, amounting to 1·63 ins., during the day. The fall of the barometer between 8 a.m. and 2 p.m. was most rapid at Scarborough, and it would appear that the depression became obliterated in its passage over the North Sea, for by 8 a.m. on the 8th the cyclonic system of the previous day had quite disappeared, and the more extensive area of low readings which had passed over Ireland was located over the Moray Firth, while a stiff easterly gale was reported from the Shetlands and the south of Norway, throwing in a very high sea on the Scotch coast. This disturbance, however, soon died down.

March 9. The course of the barograms during this and the next few days was unsteady, and some peculiar oscillations are noticeable (Plate XIV.). The dip which appeared at Valencia shortly before noon, became much more marked at Armagh, evidently becoming more extensive and less abrupt, and at the Scotch stations and Stonyhurst there was very slight recovery after it, while at Falmouth the mercury rose about 0·05 in. at about 5 p.m., with a shift of wind from S. to W., a heavy hail shower and a sudden fall of temperature. The same phenomena exactly were registered at Kew just at 11 o'clock, so that the squall took nearly six hours to travel over the distance. At Stonyhurst we have the fall of the thermometer, but not the very sharp barometrical oscillation.

Fig. 26, from 8 a.m. on the 10th, shows the lowest reading at Stornoway with slight gales at Brest and at Fanö in Denmark, but this gives but little idea of the changes which were in progress, for we see that the barometer in the evening began to fall at Armagh, and, in a more marked way, at Glasgow and Stonyhurst, so that at 8 a.m. on the 11th (Fig. 27) we find an area of depression over the Firth of Clyde which has advanced from the N.W. as its approach is not indicated at Valencia, and it is not traceable at Aberdeen. The small oscillation at Falmouth is evidently quite independent of the above disturbance.

The following table shows that the gale was nowhere very serious :—

Observatories, March 10-12, 1873.	VELOCITY 30-40 Miles per Hour.		VELOCITY Exceeding 40 Miles per hour.				VELOCITY. Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	MAXIMUM VELOCITY.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	Noon (10th).	W.	—	—	—	—	3 a.m. (11th).	N.W.byW.	8	Midnt. 10th & 1 a.m. 11th.	W.S.W.	40	For two hours only. Occasional lulls.
Sandwick	4 p.m. (11th).	N.E. by N.	9 a.m. (12th).	N.W.	46	2	11 a.m. (12th).	N.E. by N.	12	10 a.m. (12th).	N.N.W.	49	With occasional lulls. Wind backed to N.N.W., and when it veered again to N.E. by N., velocity fell from 49 to 23 miles.
Falmouth	11 a.m. (10th).	W.S.W.	4 a.m. (11th).	W. by S.	44	3	6 p.m. (11th).	W. by N.	24	5 a.m. (11th).	W.	48	Lull from 4 to 8 p.m. 10th, and at midnight 10th and 1 a.m. 11th.
Holyhead	1 a.m. (11th).	S.W. by S.	9 a.m. (11th). 6 p.m. (11th).	W. N.N.E.	41 42	4 5	10 a.m. (12th).	N.E.	25	7 p.m. (11th).	N.N.E.	44	Occasional lulls.

The depression speedily passed away, and by 8 a.m. on the 12th (Fig. 28, Plate XV.) the area of lowest readings lay off the Danish coast, but the readings at Christiansund, and in the Shetlands showed a slight decrease. A remarkable change then took place, as will be seen from the barograms, a depression travelling *in a direction from N.N.E.* over Scotland. Its traces are only to be seen clearly in the barograms from the Scotch observatories and Armagh. The earliest appearance of it on our charts was at 2 p.m. on the 12th when the reading at Thurso indicated a fall of 0.14 in. since the morning. A chart for 6 p.m. shows the centre close to Aberdeen, and by 8 a.m. on the 13th (Fig. 29) it lay over the Irish sea. By 6 p.m. it had advanced to Wales, and as the readings at 8 a.m. on the 14th were lowest over Cornwall it may possibly even have advanced so far to the southward, although the Falmouth barogram betrays no definite signs of its passage. The gradients were not steep anywhere, and it caused no strong wind. It, however, speedily became obliterated by the approach of a much more serious depression over the Bay of Biscay, which brought on a stiff easterly gale.

Mar. 15. Fig 30 shows the cyclonic disturbance, just referred to, close to Brest, while the gale is reported as beginning at Yarmouth, and in the west of England. The particulars of the wind will be found in the subjoined table.

Observatories, March 15-16, 1873.	VELOCITY 30-40 Miles per Hour.		VELOCITY. Exceeding 40 Miles per Hour.				VELOCITY Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	MAXIMUM VELOCITY.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	3 a.m. (15th).	N.E.	—	—	—	—	3 a.m. (16th).	E. by N.	24	10 p.m. (15th).	N.E. by E.	45	For one hour only. Slightly above 40 2 and 3 p.m. 15th N.E.
Falmouth	10 p.m. (14th).	E.N.E.	2 a.m. (15th).	N.E. by E.	49	25	11 a.m. (16th).	E. by N.	37	1 p.m. (15th).	E. by N.	59	Above 50 miles from 11 a.m. to 11 p.m. 15th, direction E. by N.
Holyhead	9 a.m. (15th).	E. by N.	11 a.m. (15th). 1 a.m. (16th).	E. by N. E. by N.	46 45	7 15	7 p.m. (16th).	E. by N.	34	2 p.m. (15th). 10 a.m. (16th).	E.N.E. E.N.E.	53	—
Kew	8 a.m. (15th).	E.N.E.	11 a.m (15th).	N.E. by E.	41	3	1 p.m (16th).	E.N.E.	29	11 a.m. (15th).	N.E. by E.	42	—
Yarmouth	3 a.m. (15th).	E. by S.	4 a.m. (15th).	E by S.	44	47	3 a.m.. (17th).	S.E. by. S.	48	5 a.m. (16th).	E. by S.	54	Velocity up to 50 miles for 7 hours, midnight 15th to 6 a.m. 16th.

The gale was accompanied by a good deal of snow and hail, especially in the south-eastern counties.

The barometer had given way in the north of these islands by the 17th, so that the gale moderated, but fresh breezes from the N.E. and N. continued to blow over England generally with fine, but rather misty, weather and light winds in Scotland until the 21st, when snow again fell in the south-east of England.

From this to the end of the quarter there was nothing worthy of notice. Winds were generally very light with a prevalence of fog in the north of Scotland. On the 27th and again on the 31st slight areas of depression passed up our west coasts, but without materially affecting our winds.

One of the thermometers belonging to the thermograph at Falmouth was accidentally broken on the 29th, so that the record is deficient for a short period.

REMARKS.

The following table gives the number of hours during which the wind reached the velocity of 30 miles per hour, irrespective of its direction, for each month and for the entire quarter.

Stations.	Jan.	Feb.	Mar.	Total.	Stations.	Jan.	Feb.	Mar.	Total.
Valencia - -	336	58	78	472	Stonyhurst -	39	10	4	53
Armagh - -	80	0	6	86	Halifax - -	68	19	—	—
Glasgow - -	59	3	1	63	Seaham - -	36	57	2	95
Aberdeen - -	51	37	3	91	Alnwick Castle -	122	24	12	158
Sandwick - -	175	198	78	451	Kew - - -	39	25	35	99
Falmouth - -	211	128	105	444	Yarmouth - -	117	*155	123	395?
Holyhead - -	375	187	163	725					

* Doubtful, one day (9th) missing.

Holyhead as usual heads the list, and is followed after a considerable interval by Valencia, Sandwick, and Falmouth. The remarkable absence of strong winds in February and March at Armagh and Glasgow seems deserving of notice. There is also a great contrast between the figures for the adjacent stations of Seaham and Alnwick Castle, which tends to show the merely local applicability of the data furnished by Anemometrical records.

Pressure.—The following tables give the mean and extreme readings in each month, as in previous years.

January.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	Inches.	Inches.	Inches.	D. H.	Inches.	D. H.	Inches.
Valencia - -	29·516	— ·238	30·007	29th, 9 a.m.	28·295	20th, 8 a.m.	1·712
Armagh - -	·509	— ·266	·148	31st, 2 a.m.	·264	20th, 1 a.m.	1·884
Glasgow - -	·559	— ·177	·238	31st, 11 a.m.	*·222?	19th, 8 p.m.	2·016?
Aberdeen - -	·464	— ·259	·362	31st, 11 a.m.	·146	20th, 4 a.m.	2·216
Falmouth - -	·714	— ·258	·249	13th, 11 p.m.	·542	20th, 6 & 7 a.m.	1·707
Stonyhurst -	·660	— ·153	·217	31st, 11 a.m.	*·377?	20th, 10 a.m.	1·840?
Kew - - -	29·766	— ·172	30·227	14th, 10 a.m.	28·474	20th, 1 a.m.	1·753

* Lowest reading of standard barometer recorded, light cut off from barograph. Minimum probably lower.

Pressure was below the average at all the observatories, but not to the same extent as in January 1872. The deficiency exceeded a quarter of an inch. The maximum readings fell quite at the end of the month, except in the south of England. The minimum readings were all observed on the 20th, except at Glasgow, where the true minimum was not recorded. The absolute minimum was observed at Aberdeen, it was only ·023 in. lower than that recorded January 18, 1872, at the same observatory, and ·030 in. lower than the reading at Armagh, January 16, 1871. It seems remarkable that these three serious depressions should have occurred in three successive years, at intervals of about 367 days from each other.

The range at Aberdeen reached the high figure of 2·216 ins., a value which has only three times been exceeded since these records have commenced, viz., at Glasgow, 2·362 ins. (Dec. 1869), and 2·237 ins. (Oct. 1870), and at Aberdeen 2·386 ins. (Dec. 1869).

February.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	Inches.	Inches.	Inches.	D. H.	Inches.	D. H.	Inches.
Valencia - -	30·144	+ ·249	*30·754?	11th, 10 a.m.	28·699	25th, midngt.	2·055?
Armagh - -	·164	+ ·307	·730	18th, 10 a.m.	·779	26th, 5 a.m.	1·951
Glasgow - -	·098	+ ·255	·674	18th, 11 a.m.	·827	26th, 2 p.m.	1·847
Aberdeen -	·089	+ ·234	·594	18th, noon and 8 p.m.	·869	26th, 2 & 3 p.m.	1·725
Falmouth -	·092	+ ·056	·714	18th, 11 a.m. and noon	·858	2nd, noon	1·856
Stonyhurst -	·116	+ ·213	·756	18th, 11 a.m.	·768	26th, 11 a.m.	1·988
Kew - -	30·090	+ ·082	30·825	18th, 11 a.m.	28·857	26th, 2 p.m.	1·968

* Highest reading registered; no trace for the next hour.

Pressure was considerably above its average value for the month, except at Falmouth and Kew, all the readings being above 30 ins., a circumstance which had not occurred in the same month during any of the four previous years.

The maximum readings were very remarkable, being all observed within two hours of each other, with the single exception of Valencia. The absolute maximum occurred at Kew. The minima were not very low, and except that at Falmouth, which accompanied the snowstorm of the 2nd, they were all recorded within an interval of 14 hours on the 26th.

March.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	Inches.	Inches.	Inches.	D. H.	Inches.	D. H.	Inches.
Valencia - -	29·803	− ·071	30·222	19th, midngt.	28·851	1st, 11 a.m.	1·371
Armagh - -	·813	+ ·042	·287	20th, midngt.	29·011	1st, 2 & 3 p.m.	1·276
Glasgow - -	·811	+ ·095	·286	20th, midngt. 21st, 1 a.m.	28·918	11th, 5 a.m.	1·368
Aberdeen - -	·845	+ ·107	·308	15th, 8 p.m. 20th, 11 p.m.	29·014	10th, 7 a.m.	1·294
Falmouth - -	·803	− ·086	·126	26th, 11 a.m.	·043	1st, 3 p.m.	1·083
Stonyhurst - -	·819	− ·025	·237	25th, 11 p.m.	·014	11th, 9 & 10 a.m.	1·223
Kew - - -	29·825	− ·003	30·213	26th, 10 a.m.	29·135	1st, 4 & 5 p.m.	1·078

There is nothing calling for especial remark as regards the pressure in this month; it was slightly above the average in Scotland and at Armagh, and below it elsewhere. The maximum was recorded at Aberdeen, and the minimum at Valencia.

Temperature.— January.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	D. H.	°	D. H.	°
Valencia - -	45·5	+2·5	52·7	13th, 3 p.m.	31·4	19th, 7 & 9 p.m.	21·3
Armagh - . -	40·7	+1·1	52·0	13th, 8 p.m.	25·7	20th, 8 p.m.	26·3
Glasgow - -	39·9	+2·6	51·4	13th, 9 p.m.	25·6	25th, 1 a.m.	25·8
Aberdeen - -	40·3	+4·2	54·6	14th, 4 p.m.	28·8	25th, 5 a.m.	25·8
Falmouth - -	45·6	—	53·8	4th, 3 p.m.	33·4	20th, 1 a.m.	20·4
Stonyhurst - -	40·1	+2·7	51·9	13th, 3 p.m.	18·6	21st, 4 a.m.	33·3
Kew - - -	42·5	+5·9	53·2	10th, 2 p.m.	25·7	25th, 5 p.m.	27·5

The mean temperature for the month was considerably above the average at all stations, but in January 1869, the temperature at all the observatories, except Kew (where it was 42·4,) was higher than in the year now under notice. The highest readings were noticed on the 13th, except at Aberdeen and in the south of England; the absolute maximum occurring at Aberdeen. The minimum (by 7°) was observed at Stonyhurst, where also the range was greatest.

February.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	D. H.	°	D. H.	°
Valencia - -	42·0	−2·1	50·5	19th, 2 p.m.	25·2	3rd, 4 a.m.	25·3
Armagh - -	36·5	−4·2	47·8	20th, 4 p.m.	20·2	24th, 7 a.m.	27·6
Glasgow - -	35·4	−2·7	47·8	20th, noon	22·4	24th, 6 a.m.	25·4
Aberdeen - -	35·9	−1·3	48·3	16th, 3 p.m.	12·5	25th, 3 a.m.	35·8
Falmouth - -	41·0	—	52·5	25th, noon	32·7	3rd, 4 p.m.	19·8
Stonyhurst - -	35·2	−3·3	43·8	26th, 2 p.m.	12·7	24th, 5 a.m.	31·1
Kew - - -	35·6	−3·0	49·7	26th, 4 p.m.	25·5	2nd, 4 a.m.	24·2

February was colder at most stations than it had been in any of the four previous years, the deficiency being as much as 4°·2 at Armagh, and 3° at Kew and Stonyhurst. The maxima were generally low, exceeding 50° at only two stations. The minima were observed at Aberdeen and Stonyhurst, and the greatest range at the former station. The least range is found at Falmouth, owing to the fact that the temperature never fell below 32°.

March.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	D. H.	°	D. H.	°
Valencia - -	44·4	−1·0	56·8	25th, noon.	34·3	13th, 7 a.m.	22·5
Armagh - -	41·5	−0·1	57·5	26th, 2 p.m.	29·8	23rd, 4 a.m.	27·7
Glasgow - -	39·5	−0·1	55·1	28th, 4 p.m.	29·1	20th, 7 a.m.	26·0
Aberdeen - -	39·4	+0·6	50·7	4th, 3 p.m.	31·5	14th, 7 a.m.	19·2
Falmouth - -	44·9?	—	54·1?	3rd, 2 p.m.	33·7	13th, 6 a.m.	20·4?
Stonyhurst - -	40·3	+0·7	59·3	27th, 3 p.m.	29·3	14th, 3 a.m.	30·0
Kew - - -	42·5	+1·1	62·5	29th, 3 p.m. 30th, 3 p.m.	28·3	14th, 4 a.m.	34·2

Temperature in March was very nearly at its normal height. The extremes of temperature were both felt at Kew, where the range was consequently greatest.

Owing to the accident to the thermograph at Falmouth, the mean, the maximum temperature, and consequently the range are uncertain.

The following is the usual comparison of the five-day means for Kew with those for 43 years at Greenwich.

Dates.	Variation.	Dates.	Variation.	Dates.	Variation.
	°		°		°
January 1- 5	+9·6	Jan. 31-Feb. 4	−4·6	March 2- 6 -	+4·4
„ 6-10	+13·0	February 5- 9	−4·3	„ 7-11 -	+1·6
„ 11-15	+12·7	„ 10-14	−0·4	„ 12-16 -	−4·2
„ 16-20	+6·0	„ 15-19	−2·5	„ 17-21 -	−2·5
„ 21-25	−0·4	„ 20-24	−6·0	„ 22-26 -	+2·2
„ 26-30	−3·9	„ 25-Mar. 1	+1·1	„ 27-31 -	+4·3

The only point calling for special notice is the very great excess of temperature at the beginning of January, which was succeeded by a defect at the end of the month, lasting nearly to the 1st of March.

RAINFALL.

It will be seen that a few new stations have been added to the list. The averages used for Stornoway have been obtained from the Returns published by the Scottish Meteorological Society; those used for Kingstown have been those given for Black Rock, a station about three miles distant from it.

It will be seen that in January the amount was very great at Florence Court, where it was nearly 50 per cent. in excess of the average. In February the fall was deficient everywhere, except in the Channel and the South of England; the defect was greatest in the north-west.

RAINFALL, 1873.

POSITIONS OF GAUGES.			JANUARY.							FEBRUARY.							MARCH.						
Names of Stations.	Height of Gauge. Above Ground.	Height of Gauge. Above Mean Sea Level.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Days.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Days.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Days.
OBSERVATORIES.																							
	ft. in.	ft.																					
Valencia	2 0	11	27	9·81	+2·76	1·06	25th	1	25th	13	3·27	−0·55	0·70	1st	0	–	21	4·45	−0·45	0·95	8th	0	–
Armagh	2 2	204	20	4·06	+1·33	0·68	15th	0	–	7	0·58	−1·34	0·16	23rd	0	–	15	1·67	−0·54	0·29	30th	0	–
Glasgow	1 10	180	24	5·39	+0·32	0·83	13th	0	–	6	1·54	−2·38	0·90	25th	0	–	18	2·12	−1·25	0·35	10th	0	–
Aberdeen	2 0	48	17	2·24	−0·60	0·50	16th	0	–	13	1·54	−0·79	0·35	23rd	0	–	15	2·16	+0·19	0·74	7th	0	–
Falmouth	1 10	167	25	6·95	+2·54	0·98	18th	0	–	13	6·13	+2·62	1·27	1st	3	1st, 24th, &28th	20	4·20	+1·34	0·74	4th	0	–
Stonyhurst	1 9	377	24	6·02	+2·03	0·68	18th	0	–	11	0·85	−3·04	0·28	25th	0	–	19	3·41	+0·49	0·74	9th	0	–
Kew	1 10	20	16	2·24	+0·26	0·39	18th	0	–	12	1·56	+0·21	0·44	2nd	0	–	19	1·35	−0·34	0·23	9th	0	–
TELEGRAPHIC REPORTING STATIONS.																							
Sumburgh Head	1 9	170	23	3·99	+0·78	0·68	12th	0	–	14	1·43	−0·78	0·25	5th	0	–	12	3·30	+1·84	0·61	7th	0	–
Stornoway	1 0	30	28	7·30	+3·28	0·57	12th	0	–	17	1·53	−2·03	0·26	21st	0	–	16	2·00	−1·36	0·32	3rd	0	–
Thurso	1 9	25	26	2·25	−0·12	0·41	16th	0	–	22	1·67	−1·81	0·54	23rd	0	–	18	2·05	−0·28	0·44	7th	0	–
Wick	1 9	100	19	1·35	−0·32	0·28	4th	0	–	20	1·04	−1·12	0·31	2nd	0	–	16	1·51	−0·41	0·35	7th	0	–
Nairn	1 2	44	13	1·18	−1·58	0·40	12th	0	–	12	1·03	−0·96	0·28	26th	0	–	10	1·38	+0·17	0·42	7th	0	–
Leith	1 2	21	17	1·98	−0·12	0·46	18th	0	–	7	1·39	−0·46	0·80	26th	0	–	16	1·24	+0·24	0·35	7th	0	–
Shields	10 0	107	15	0·59	−1·45	0·17	15th	0	–	14	1·51	−0·03	0·39	10th	0	–	22	1·61	−0·23	0·38	16th	0	–
York	1 9	53	19	2·32	+0·49	0·40	4th	0	–	15	1·44	+0·05	0·42	25th	0	–	19	2·27	+0·55	0·45	7th	0	–
Scarborough	1 0	130	12	1·42	−0·78	0.25	18th	0	–	13	1·86	+0·52	0·55	3rd	0	–	15	1·44	−0·43	0·38	7th	0	–
Nottingham	0 5	162	18	2·06	+0·26	0·56	20th	0	–	12	0·99	−0·51	0·28	3rd	0	–	17	1·91	+0·21	0·47	16th	0	–
Ardrossan	1 2	13	25	5·84	+0·69	0·83	13th	0	–	9	1.34	−2·66	0·86	25th	0	–	17	2·07	+0·05	0·29	7th	0	–
Greencastle	7 6	70	26	4·78	+0·82	0·54	13th	0	–	18	1·43	−2·21	0·35	25th	0	–	20	2·24	−0·35	0·31	9th	0	–
Donaghadee	1 9	33	24	3·00	?	0·40	16th	0	–	9	1·14	?	0·59	25th	0	–	20	2·38	?	0·58	31st	0	–
Kingstown	3 5	50	25	3·51	+0·42	0·90	15th	0	–	9	0·66	−0·80	0·22	28th	0	–	20	2·90	+0·28	0·70	30th	0	–
Holyhead	1 9	45	22	5·25	+1·11	0·75	10th	0	–	8	1·08	−1·55	0·37	25th	0	–	15	3·56	+1·38	1·63	6th	1	6th
Liverpool	0 6	180	17	2·14	+0·21	0·36	18th	0	–	9	0·50	−1·07	0·10	26th	0	–	14	2·66	+1·27	0·65	6th	0	–
Roche's Point	1 9	23	26	8·76	+1·62	1·01	15th	1	15th	10	4·31	+0·44	1·65	1st	2	1st & 28th	18	4·44	+0·13	0·72	6th	0	–
Pembroke	1 2	125	26	5·12	−0·79	0·75	18th	0	–	14	1·56	−2·01	0·43	25th	0	–	21	3·39	−0·28	0·72	1st	0	–
Portishead	1 9	48	21	4·87	?	0·86	18th	0	–	9	1·00	?	0·41	24th	0	–	17	3·63	?	0·78	16th	0	–
Scilly	1 9	100	28	5-40	?	0·70	25th	0	–	15	3·76	?	0·85	28th	0	–	20	3·97	?	0·73	4th	0	–
Plymouth	10 0	75	24	5·35	+0·03	1·13	26th	1	26th	11	3·30	−0·35	0·92	28th	0	–	16	3·49	+0·01	0·78	15th	0	–
Portsmouth	1 0	16	19	3·67	+0·06	0·82	9th	0	–	9	2·78	+0·40	0·77	2nd	0	–	18	2·07	+0·24	0·34	14th & 16th	0	–
Dover	23 0	46	19	2·72	−0·98	0·80	18th	0	–	15	2·19	−0·23	0·63	25th	0	–	16	1·91	−0·73	0·27	5th	0	–
London	1 2	73	18	2·46	−0·33	0·46	9th	0	–	15	1·90	0·00	0·46	23rd	0	–	19	1·43	−0·36	0·19	9th	0	–
Oxford	0 11	209	17	2·32	+0·43	0·40	18th	0	–	12	1·27	−0·29	0·46	24th	0	–	21	2·47	+0·35	0·60	16th	0	–
Cambridge	1 0	85	17	1·82	+0·28	0·47	3rd	0	–	11	~~[illegible]~~	−0·21	0·23	26th	0	–	17	1·14	−0·73	0·19	1st	0	–
Yarmouth	3 3	11	17	1·77	−1·57	0·44	3rd	0	–	15	1·98	−0·57	0·50	3rd	0	–	15	1·49	−0·75	0·28	11th	0	–
EXTRA STATIONS. (Information supplied by societies, private individuals, and others.)																							
Barnstaple	0 8	31	23	5·43	+1·06	0·93	18th	0	–	9	2·29	−0·47	0·78	24th	0	–	17	3·77	+1·20	0·48	1st	0	–
Brighton	0 8	200	22	2·68	−0·25	0·47	18th	0	–	16	1·97	+0·53	0·53	25th	0	–	18	1·70	0·00	0·30	1st	0	–
Chiswick	0 9	25	16	2·27	+0·55	0·38	18th	0	–	9	1.56	+0·11	0·72	25th	0	–	18	1·57	+0·20	0·28	30th	0	–
Dublin	3 0	57	21	2·65	−0·08	1·04	15th	1	15th	8	0·93	−0·75	0·43	24th	0	–	22	2·39	+0·59	0·54	6th	0	–
Durham	4 6	335	14	2·01	+0·24	0·35	18th	0	–	13	1·66	+0·16	0·64	3rd	0	–	19	2·25	+0·33	0·51	6th	0	–
Florence Court (co. Fermanagh).	1 9	*289	22	9·92	+4·94	1·64	25th	2	18th, 25th	4	1·05	−2·22	0·60	24th	0	–	15	2·02	−1·73	0·77	10th	0	–
Galway	8 2	30	26	7·13	+0·80	0·84	4th	0	–	12	1·51	−3·00	0·53	28th	0	–	17	3·13	−0·41	0·55	8th	0	–
Guernsey	12 0	204	21	6·29	+1·57	1·64	19th	1	19th	17	3·31	+0·71	0·83	24th	0	–	19	3·89	+0·20	0·74	1st	0	–
Helston	5 0	115	23	4·88	+0·61	0·50	4th	0	–	15	3·89	+1·05	1·22	1st	1	1st	20	5·[illegible]9	+2·58	1·06	1st	1	1st
Jersey	36 11	39	16	4·05	+0·63	1·12	19th	1	19th	18	3·60	+1·52	0·48	1st	0	–	18	4·02	+0·69	0·59	16th	0	–
Norwich	30 0	53	15	2·16	+0·37	0·49	4th	0	–	13	1·94	+0·59	0·48	2nd	0	–	14	1·75	+0·20	0·38	11th	0	–
Parsonstown	0 8	183	27	5·36	+2·10	0·62	15th	0	–	14	0·82	−1·18	0·21	1st	0	–	20	4·24	+1·78	1·16	31st	1	31st
Rugby	3 0	383	18	1·52	−0·57	0·24	18th	0	–	13	1·14	−0·27	0·17	3rd	0	–	20	1·95	0·00	0·29	16th	0	–
Sandwick	2 0	78	25	3·52	−0·40	0·45	4th	0	–	17	1·54	−2·36	0.34	23rd	0	–	12	2·20	−0·82	0·40	8th	0	–

* A new gauge has been supplied, which has been placed nearer the ground than the old one.

PART 2.

April 1. The conditions of pressure were nearly uniform, but the barometer having risen briskly over the south of Ireland since the previous day a fresh N.W. breeze was felt at our western and south-western stations. In the evening aurora was reported from several places.

The wave of high pressure passed eastwards, and by the morning of the 2nd gradients in the south of Ireland had again become reversed, and a strong south-west breeze set in, reaching occasionally the force of a gale at Valencia, and extended over the north of England and Scotland during the day, blowing as a strong breeze at Holyhead, Alnwick Castle, and Sandwick.

April 4. The barometer in Scotland began to fall rather briskly, and by next morning a decrease of about 0·4 inch had occurred all over the North Sea, affecting, though to a less extent, the Irish readings. The result was a fresh N.W. wind which blew with considerable force at Sandwick and Falmouth, but did not amount to a gale. It brought showers of sleet at the northern stations. The fall continued over Denmark, so that by the morning of the 6th a definite area of depression is found lying over that country, and the wind over these islands drew to the northward and freshened again at several stations, attaining the force of a gale at Holyhead.

Observatories, April 6-7, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Aberdeen	8 a.m. (7th).	N.N.W.	—	—	—	—	Noon (7th).	N.N.W.	4	9 & 10 a.m. (7th).	N.W. by N.	33	—
Sandwick	5 a.m. (7th).	N.N.W.	—	—	—	-	11 a.m. (7th).	N.	6	10 a.m. (7th).	N.N.W.	34	—
Falmouth	8 a.m. (6th).	N.W. by N.	—	—	—	—	6 p.m. (6th).	N.W. by W.	10	11 a.m. (6th).	N.W. by N.	37	—
	1 a.m. (7th).	N.N.W.	—	—	—	—	4 a.m. (7th).	N.N.W.	3	1 and 3 a.m. (7th).	N.N.W.	35	—
	3 p.m. (7th).	N.N.W.	—	—	—	—	6 p.m. (7th).	N.N.W.	3	5 p.m. (7th).	N.N.W.	35	—
Holyhead	4 a.m. (6th).	N.W. by W.	6 p.m. (6th).	N.W. by N.	50	4	9 a.m. (7th).	N.N.W.	29	8 p.m. (6th).	N.N.W.	53	—
	5 p.m. (7th).	N.N.W.	8 p.m. (7th).	N.N.W.	45	2	5 a.m. (8th).	N. by E.	10	9 p.m. (7th).	N.N.W.	45	Lull for 2 hours, 11 p.m. 7th to 1 a.m. 8th.
Seaham -	11 p.m. (6th).	N. by W.	—	—	—	—	1 p.m. (7th).	N. by W.	14	4 a.m. (7th).	N.	38	—

Hail and sleet continued prevalent, and thunderstorms were reported from Nottingham on the 6th, and from Dover on the 7th.

For the next few days the winds continued from the polar quarter, veering in the south of England from N.N.W. to N.E. and back again, and occasionally rising to a stiff breeze at Yarmouth; their changes being regulated by the varying position of an area of high pressure which lay off our western and north-western coasts, somewhat changing its form from day to day, while slight depressions passed southwards along the eastern shores of the North Sea. The sky became clearer and the weather dry, with a low temperature in the south-east of England.

The thermograms during this period and the succeeding days (Plates XX. and XXI.) show very clearly the prevalence at the several observatories of dull misty weather, which had the effect of nearly obliterating the diurnal march of temperature.

April 11. The barogram at Valencia shows a steady downward tendency, and by the morning of the 13th the conditions of pressure were exactly reversed in comparison with what had prevailed a few days before, the area of lowest readings lying to the westward, while that of highest was over Denmark. The winds, accordingly, were reversed and blew from the S.S.E. or S. over Ireland, exceeding the velocity of 30 miles an hour for 37 hours at Valencia on the 13th and 14th, and at Sandwick for 58 hours on the 13th to the 15th, and causing heavy rain in Ireland on the 13th. This wind was apparently due to the outflow of cold air from the area of high pressure prevailing over eastern Europe, and was not connected with an advancing cyclonic system. It was felt all along the eastern shores of the North Sea. On the 15th the sky cleared over most of England, and thunderstorms occurred at several stations.

This attempt of the Equatoreal current to displace the Polar winds was of short duration, and our weather returned on the 17th to the conditions ruling previously, of winds varying from East to North and back again, with cold and dry weather.

There was no change of any importance up to the 21st except that the sky cleared nearly universally on the 19th, as will be seen from Plate XXII. On the evening of the 18th aurora was reported.

April 21. The isobars show an area of high pressure over the north and west of the United Kingdom, while at the same time a considerable fall occurred over Norway with a fresh westerly gale at Christiansund. In these islands the most remarkable occurrence was the great extent of diurnal range of temperature, especially at Glasgow.

The depression above-mentioned advanced southwards over Denmark, causing our winds to back to the North, from which point they continued with varying force until the 26th, when a fresh fall of the barometer was reported in Norway. These northerly winds produced snow showers at several stations and a serious reduction of temperature, and the lowest readings for the month were recorded at all the observatories between the 24th and 26th, as will be seen from the table at p. 29. Pressure still remaining highest on our western coasts, the last-named area of depression followed a similar course to its predecessors, and by the morning of the 27th (Fig. 31, Plate XXIV.) was lying near the mouth of the Elbe. It caused some increase of wind at our stations, as will be seen from the subjoined table.

Observatories, April 27–28, 1878.	VELOCITY, 30–40 Miles per Hour.		VELOCITY, Exceeding 40 Miles per Hour.				VELOCITY Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	MAXIMUM VELOCITY.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Sandwick	10 p.m. (27th).	W.N.W.	—	—	—	—	11 p.m. (28th).	N.W. by N.	25	8 p.m. (28th).	N.W. by N.	37	—
Falmouth	9 a.m. (27th).	N.W. by N.	—	—	—	—	8 p.m. (27th).	N.N.W.	11	2 and 4 p.m. (27th).	N.N.W.	36	—
Holyhead	3 a.m. (27th).	N.W.	—	—	—	—	Noon (27th).	N.E.	9	8 a.m. (27th).	N.N.W.	42	Above 40 miles for one hour only.
Yarmouth	4 p.m. (27th).	N.N.E.	—	—	—	—	10 p.m. (27th).	N.	6	4 p.m. (27th).	N.N.E.	33	—

Note.—At Seaham there was a little strong wind on the morning of the 27th (4, 5, and 8 a.m.) from N., max. 37 miles at 5 a.m.

April 28. The winds over Great Britain had again backed to North-west, under the influence of a third depression, clearly indicated in the Aberdeen barogram for this day, which again advanced southwards, bringing the winds on our coasts back again to North.

Weather of a similar character prevailed up to the 4th of May; a depression more extensive than those recently noticed having passed eastwards over Scotland on the 2nd and 3rd, but without more effect on our winds than causing strong breezes from N.W. for a few hours at the northern stations and at Falmouth, and bringing on hail showers with thunder and lightning on the east coast of England.

May 4. We find the symptoms of a return of equatoreal winds in the steady fall of the barometer at Valencia (Plate XXV.), and this depression passed due eastwards over central England, while the northern barometers were hardly affected. The consequence was that a severe gale from the Eastward, which was entirely local, was felt at Aberdeen.

Observatories, May 5-6, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Aberdeen	2 p.m. (5th).	S.E.	8 p.m. (5th).	E.S.E.	49	12	1 p.m. (6th).	E.	23	1 and 2 a.m. (6th).	E.	54	Above 50 miles 5 hours.
Sandwick	6 a.m. (6th).	E.	—	—	—	—	5 a.m. (7th).	E.S.E.	20	11 a.m. & noon (6th).	E. by N.	37	Below 30 miles occasionally after 8 p.m. 6th.
Falmouth	2 p.m. (5th).	W.	—	—	—	—	6 p.m. (5th).	N.W.	4	3 and 4 p.m. (5th).	W.N.W.	35	—
Yarmouth	8 a.m. (5th).	S.S.W.	—	—	—	—	3 p.m. (5th).	S. by W.	7	10 a.m. (5th).	S. by E.	40	—

It is very remarkable that such a strong current of air should have passed over Aberdeen, while the anemographs at Glasgow and Sandwick did not register a storm. The depression does not appear to have crossed our islands, but was filled up on the spot, and the barometer recovered somewhat from its effects.

May 7. A remarkable double dip is noticeable in the Valencia barogram (Plate XXVI.), which passed on to Falmouth, where it is still more marked, but, strange to say, it is not traceable at Kew. Fig. 32 for 8 a.m. on the 8th, shows us the reading at the Helder below 29·40 ins., and a large oval area of depression, embracing all but the extreme west and north of these islands, while fresh westerly and north-westerly gales are blowing over France. The force of the wind on our shores was not serious, but heavy hail-squalls were reported from the south-west coast, and thunderstorms occurred at several stations on the 9th and 10th.

Observatories, May 7-8 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	7 a.m. (7th).	S.E. by E.	4 p.m. (7th).	W. by S.	46	2	10 p.m. (7th).	N.W.	15	5 p.m. (7th).	W.S.W.	48	—
Falmouth	Noon (7th).	W. by N.	1 p.m. (7th). 2 a.m. (8th).	W. by N. W.	49 43	6 4	7 p.m. (8th).	W.N.W.	31	2 & 3 p.m. (7th).	W. by N.	55	At 11 a.m. 7th (just before this gale began) wind was S.E. by S., 15 miles then changed to W. by N. 33 miles at noon.
Yarmouth	Noon (7th).	S.	—	—	—	—	3 p.m. (7th).	S. by W.	3	Noon & 1 p.m. (7th).	S.	34	—

A brisk rise then took place in the barometer, and the area of highest readings again appeared on our south-west coast. The immediate result was the advance of a depression over Norway on the 12th, effectually displacing the southerly winds of the last few days and restoring the Polar current, which soon veered from N. to N.E., and prevailed for 10 days, blowing at intervals with considerable strength in the Channel. The most serious increase of force took place on the 17th, and was produced by the advance over the south of England of a shallow depression which increased the gradients for easterly winds over the Midland Counties, and caused easterly gales at Holyhead and Yarmouth.

Observatories, May 16-18, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Falmouth	3 a.m. (16th).	E. by S.	—	—	—	—	7 p.m. (16th).	E.	16	Noon (16th).	E. by N.	37	—
Holyhead	11 a.m. (17th).	E.S.E.	2 p.m. (17th).	E.S.E.	44	8	Midnt. (18th).	N. by E.	33	9 p.m. (17th).	E.S.E.	50	Lull for 4 hours, 5 to 9 p.m. (18th).
Kew -	6 a.m. (17th).	E.S.E.	—	—	—	—	3 p.m. (17th).	E.S.E.	9	10 a.m. (17th).	E.S.E.	39	—
Yarmouth	7 p.m. (16th).	E.	2 p.m. (17th).	E.	45	16	3 p.m. (18th).	N.E.	44	11 p.m. (17th).	E.	50	—

This disturbance was accompanied by a good deal of rain, whereas the weather previously had been dry, though foggy in some places.

As the area of low readings passed off eastwards on the 19th, the wind backed to north and the sky cleared rapidly. The barometer recovered briskly, especially over the west of England, and so, when pressure gave way somewhat on the west coast, steep gradients were at once produced and a stiff southerly breeze, at times amounting to a gale, swept over most of our western stations, blowing hardest at Stornoway at noon on the 20th, when force 10 was reported.

The depression passed in a north-easterly direction over Scotland, and by the morning of the 21st a general fall of the barometer in the north altered the distribution of pressure completely, and light westerly winds took the place of the Polar current.

May 23. A slight cyclonic disturbance passed very rapidly across Scotland (Plate XXIX.), affecting the southern observatories in a much less degree than those situated to the northward. It only caused the freshening of westerly breezes, but was accompanied by rain generally.

No change of much importance occurred until the end of the month, when we experienced the rare phenomenon of a depression advancing *from the eastward* as far as the Straits of Dover.

The fall of the barometer began on the 30th over all the southern part of the North Sea. By next morning the decrease had been most rapid over Holland and North Germany, and by 8 a.m. on the 1st of June a fall of more than 0·3 in. had occurred over the south-east of England which, as will be seen from Plate XXX., did not affect any other observatory than Kew. It seems fair, therefore, to assume that the depression really did move for some distance from east towards west.

It became filled up in a very remarkable way during the course of the 1st, the Chart for June 2nd betraying not a trace of its existence.

No changes of any consequence occurred during the next few days, except that an area of high pressure gradually appeared on our west coasts, and, as usual, the passage of cyclonic disturbances in a southerly direction along the eastern shores of the North Sea recommenced, while the steady rise of the barometer in the United Kingdom rendered gradients steeper.

Figs. 33 and 34 (Plate XXXII.) show the main features in the history of one of these. On the 5th of June a considerable fall had set in at Christiansund. Next day a rise was reported at that station, and the greatest fall at the Scaw, with a N.W. gale at Skudesnaes, and by the morning of the 7th, although the barometer had not changed much, a stiff northerly gale swept over Denmark, causing a serious reduction of temperature.

June 9. The barometer, which had begun to descend briskly on the west coast of Scotland on the previous morning, now commenced a very rapid decrease (Plate XXXII.), and by the morning of the 10th the conditions were those represented on Fig. 35 (Plate XXXIII).; the lowest readings lying over the Hebrides, where the mercury had fallen more than an inch in 48 hours (a most unusual extent of oscillation in the month of June), while an area of excess of pressure was situated over western and central France. The only gale reported was felt at Stornoway from the S.W., but it was excessively severe, and it is most remarkable that such a storm should not have affected Thurso, or even the anemometer at Sandwick Manse to a greater extent than it did, as this instrument cannot be considered to be sheltered by the mainland of Scotland, as will be seen from the description of its exposure in the Quarterly Weather Report for 1871, Appendix p. [7]. The amount of rain which came with this disturbance was insignificant, though the weather was generally showery. The anemometrical records from the observatories give the following table:—

Observatories, June 9–10, 1873.	Velocity, 30–40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	7 p.m. (9th).	S.S.W.	11 p.m. (9th).	S. by W.	45	4	3 a.m. (10th).	W.	8	Midnt. (9th).	S. by W.	50	From 2 to 3 a.m. on the 10th, the direction changed from S.S.W. to W. and velocity fell from 42 miles to 12 miles.
Glasgow	10 a.m. (10th).	W.S.W.	—	—	—	—	Noon (10th).	W. by S.	2	10 a.m. (10th).	W.S.W.	34	—

Observatories, Jan. 9–10, 1873.	Velocity, 30–40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Sandwick	7 a.m. (10th).	S.S.E.	—	—	—	—	10 a.m. (10th).	W.S.W.	3	9 a.m. (10th).	S.	35	—
Holyhead	9 p.m. (9th).	S.	4 a.m. (10th).	S.	43	2	10 a.m. (10th).	W.S.W.	13	5 a.m. (10th).	S. by W.	44	As at Valencia direction changed suddenly from S.S.W. to W.S.W. between 10 and 11 a.m., and velocity fell from 33 miles to 14 miles.
Alnwick Castle.	10 a.m. (10th).	S.W.	—	—	—	—	Noon (10th).	W.S.W.	2	11 a.m. (10th).	W. by S.	32	—

For the next few days the changes do not call for special notice. The temperature continued low for the season until the 22nd, when a maximum temperature exceeding 80° was registered at more than one station in central England. Fog was very prevalent on our south-west coasts at the end of the period.

June 24. A depression appeared off the west coast of Scotland, which is especially remarkable for the extreme unsteadiness of the barograms at all the observatories while the mercury was falling (Plate XXXV.).

By next morning the centre of the disturbance lay near the Naze (Fig. 36, Plate XXXVI.), and stiff breezes from the west and north-west blew over these islands, causing a rapid decrease of temperature.

A quick rise of the barometer ensued at all our western and northern stations, especially at the latter, a change which made the gradients for N.W. winds across the North Sea much more serious, and caused heavy gales from that quarter to blow over Denmark.

Nothing of much note occurred from this to the end of the month, except that on the 29th thunderstorms were prevalent in many places. Upwards of an inch of rain fell at Oxford, while at Stonyhurst the amount was 1·54 ins., most of which fell between 6 and 9 p.m. (Plate XXXVI.). At Southall, in Herefordshire, the quantity was as much as 1·82 ins., and was collected in six hours, chiefly between 2.20 and 5.30 p.m.

REMARKS.

The following table gives the number of hours during which the wind reached the velocity of 30 miles per hour, irrespective of its direction, for each month and for the entire quarter.

Stations.	April	May	June	Total.	Stations.	April	May	June	Total.
Valencia - -	44	58	41	143	Stonyhurst -	5	1	5	11
Armagh - -	0	0	1	1	Halifax - -	5	2	1	8
Glasgow - -	8	7	12	27	Seaham - -	25	14	10	49
Aberdeen - -	16	25	6	47	Alnwick Castle -	6	13	‡24?	43?
Sandwick - -	*167?	51	23	241?	Kew - - -	2	12	0	14
Falmouth - -	†48?	73	25	146?	Yarmouth - -	68	57	30	155
Holyhead - -	86	89	91	266					

* Doubtful, 16 hours lost 22nd–23rd, velocity being high at the time.
† „ 25 hours lost 9th–10th.
‡ „ 9 days lost, 14th to 23rd.

Holyhead, as usual, heads the list, but it was closely rivalled by Sandwick. The great excess of wind at the latter station in the month of April is very remarkable.

Pressure.—

April.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	Inches.	Inches.	Inches.	D. H.	Inches.	D. H.	Inches.
Valencia - -	30·112	+ ·190	30·470	9th, 10&11 a.m.	29·452	14th, 6 a.m.	1·018
Armagh - -	·109	+ ·205	·504	9th, 10 p.m.	·622	16th, 4 & 6 p.m.	0·882
Glasgow - -	·050	+ ·157	·494	9th, 10 p.m.	·618	6th, 8 a.m.	0·876
Aberdeen - -	·047	+ ·131	·512	9th, Midngt.	·486	6th, 5 a.m.	1·026
Falmouth - -	·069	+ ·066	·384	3rd, 11 p.m.	·535	17th, 4 a.m.	0·849
Stonyhurst -	·049	+ ·157	·442	10th, 9 a.m.	·587	17th, noon.	0·855
Kew - - -	30·015	+ ·047	30·350	9th, 11 p.m.	29·525	17th, 2 p.m.	0·825

Pressure was above the average at all stations, the amount varying from 0·205 in. at Armagh to 0·047 in. at Kew. The range was smaller than in any of the four previous years, exceeding an inch only at Valencia and Aberdeen.

May.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	Inches.	Inches.	Inches.	D. H.	Inches.	D. H.	Inches.
Valencia - -	29·995	+ ·134	30·399	28th, 11 p.m.	29·353	5th, 4 a.m.	1·046
Armagh - -	·969	+ ·047	·442	29th, 8 a.m.	·367	6th, 3 a.m.	1·075
Glasgow - -	·915	+ ·006	·402	29th, 8 a.m.	·287	5th, midngt. & 6th, 1 a.m.	1·115
Aberdeen - -	29·927	− ·025	·432	29th, 8 a.m.	·434	3rd, 3 a.m.	0·998
Falmouth - -	30·020	+ ·015	·404	29th, 8 a.m.	·348	5th, 2 p.m.	1·056
Stonyhurst - -	29·956	+ ·048	·423	29th, 6 a.m.	·289	5th, 3 p.m.	1·134
Kew - - -	29·982	+ ·016	30·432	29th, 8 a.m.	29·349	5th, 11 p.m.	1·083

The barometer was very nearly at its mean height for the month at all stations except Valencia, where it was more than 0·1 in. too high. The range was very uniform, and greater than in April.

The maximum readings were absolutely simultaneous at five out of the seven observatories.

June.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	Inches.	Inches.	Inches.	D. H.	Inches.	D. H.	Inches.
Valencia - -	29·990	− ·115	30·419	7th, 1 p.m.	29·465	11th, 3 p.m.	0·954
Armagh - -	·954	+ ·037	·399	7th, 9 a.m.	·441	10th, 4 a.m.	0·958
Glasgow - -	·899	+ ·010	·304	2nd, 5 a.m.	·392	10th, 7 a.m.	0·912
Aberdeen -	29·895	− ·026	·351	2nd, 5 a.m.	·297	10th, 9 a.m.	1·054
Falmouth -	30·021	− ·026	·349	26th, 8 a.m.	·465	12th, 3 a.m.	0·884
Stonyhurst -	29·951	+ ·031	·296	7th, 9 a.m.	·541	12th 5 p.m.	0·755
Kew - -	29·974	− ·006	30·277	21st, 8 a.m.	29·511	12th, 5 p.m.	0·766

Pressure still continued very near its mean amount, but four of the stations show a defect, which was as much as 0·115 in. at Valencia. The range was moderate, and it is remarkable that the great oscillation of the 9th and 10th at Stornoway was much reduced in extent at Aberdeen. At Sandwick the range of the 8 a.m. readings was 1·216 ins.

Temperature.—

April.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	D. H.	°	D. H.	°
Valencia - -	*49·5	+0·3	65·8	19th, 1 p.m.	36·4	24th, 6 a.m.	29·4
Armagh - -	46·2	−1·1	62·4	21st, 2 p.m.	30·7	25th, 5 a.m.	31·7
Glasgow - -	45·5	+0·6	67·0	21st, 4 p.m.	32·2	24th, 6 a.m.	34·8
Aberdeen -	43·5	+0·4	57·2	30th, 6 p.m.	32·0	24th, 6 a.m.	25·2
Falmouth - -	†48·1	—	‡60·4?	17th, 2 p.m.	‡35·0?	26th, 4 a.m.	25·4?
Stonyhurst - -	45·2	+0·7	66·6	15th, 1 p.m.	29·3	26th, 3 a.m.	37·3
Kew - - -	46·4	+0·2	72·8	16th, 2 p.m.	30·0	26th, 6 a.m.	42·8

* 29 days. † 26 days, thermometer accidentally broken.
‡ From the 1st to the 7th there are only hourly readings of standard, and only from 6 a.m. to midnight each day.

Temperature hardly varied from its average amount, except at Armagh, where it was as much as 1°·1 in defect. The range was greatest at Kew, and least at Aberdeen. The minima were recorded at all the observatories between the 24th and 26th.

May.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	D. H.	°	D. H.	°
Valencia - -	52·7	−0·2	68·0	13th, 5 p.m.	40·9	19th, 5 a.m.	27·1
Armagh - -	49·5	−2·7	67·9	30th, 2 p.m.	33·6	7th, 5 a.m.	34·3
Glasgow - -	47·4	−3·0	66·1	31st, 3 p.m.	33·0	4th, 5 a.m.	33·1
Aberdeen - -	45·6	−2·6	62·0	21st, 2 p.m.	32·6	19th, 3 a.m.	29·4
Falmouth - -	52·2	—	66·2	29th, 2 p.m.	43·0	6th, 4 a.m.	23·2
Stonyhurst - -	48·2	−1·7	65·8	31st, 1 p.m.	33·1	20th, 4 a.m.	32·7
Kew - - -	51·2	−1·8	69·8	26th, 2 p.m.	33·7	20th, 4 a.m.	36·1

May was a cold month everywhere, except at Valencia, where the readings were nearly at their normal value, but the readings did not anywhere sink below the freezing point. The range was greatest at Kew, and least at Falmouth.

June.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	D. H.	°	D. H.	°
Valencia - -	57·0	+0·3	68·5	21st, 4 p.m.	45·9	15th, 5 a.m.	22·6
Armagh - -	56·9	−1·2	71·4	21st, 4 p.m.	44·6	16th, 4 a.m.	26·8
Glasgow - -	56·0	+0·2	69·4	5th, 2 p.m.	42·0	1st, 3 a.m.	27·4
Aberdeen -	54·9	−0·1	70·9	20th, 2 p.m.	43·3	1st, 1 a.m.	27·6
Falmouth - -	58·3	—	70·5	21st, 4 p.m.	49·7	16th, 4 a.m.	20·8
Stonyhurst - -	56·9	+2·2	71·3	29th, 2 p.m.	42·9	2nd, 3 a.m.	28·4
Kew - - -	59·3	+0·2	78·2	29th, 1 p.m.	43·0	7th, 3 a.m.	35·2

In June, too, temperature was normal except at Stonyhurst, where it was 2° too high. The range was small, not exceeding 30° at any station but Kew.

The following is a comparison of the five-day means for Kew (civil time), with those for 43 years at Greenwich. The employment of civil instead of astronomical time has been adopted by the Committee, in accordance with the resolution of the Vienna Congress.

Dates.	Variation.	Dates.	Variation.	Dates.	Variation.
	°		°		°
April 1– 5	+3·9	May 1– 5	−0·3	May 31–June 4	−0·7
„ 6–10	−2·8	„ 6–10	−1·9	June 5– 9	−0·5
„ 11–15	+2·2	„ 11–15	+0·5	„ 10–14	−1·9
„ 16–20	+6·5	„ 16–20	−6·1	„ 15–19	+1·3
„ 21–25	−5·6	„ 21–25	−0·7	„ 20–24	+3·2
„ 26–30	−3·1	„ 26–30	−1·5	„ 25–29	+0·1

There is nothing calling for special notice excepting the contrast between the differences for the fourth and fifth periods in April. The sudden fall of temperature in the middle of May is striking.

RAIN.

The rainfall in April was singularly small, the only stations at which it was not in defect being Galway, Dover, and the three northern telegraph stations, while Sandwick, situated between Sumburgh Head and Thurso, shows a deficiency.

In May the amount was not far from the normal quantity, but there was a tendency to deficiency, only one station showing an excess of more than an inch, while at seven stations a defect of more than an inch was reported.

In June the fall was less evenly distributed, owing to the prevalence of thunderstorms. The falls at Nottingham on the 3rd, and at Stonyhurst on the 29th, exceeded 1·5 ins., while by Mr. Southall, at Ross, in Herefordshire (p. 27), a still heavier fall was reported on the latter day.

RAINFALL, 1873.

Positions of Gauges.			April.							May.							June.						
Names of Stations.	Height of Gauge. Above Ground.	Height of Gauge. Above Mean Sea Level.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Days.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Days.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Days.
Observatories.																							
	ft. in.	ft.																					
Valencia	2 0	11	14	2·36	−1·09	0·80	13th	0	–	18	3·28	+0·28	0·75	4th	0	–	18	2·81	−0·03	0·62	18th	0	–
Armagh	2 2	204	6	0·27	−1·82	0·15	3rd	0	–	17	1·72	−0·52	0·26	17th	0	–	16	1·53	−0·60	0·51	11th	0	–
Glasgow	1 10	180	6	0·21	−2·25	0·06	4th	0	–	20	3·29	+0·80	0·62	5th	0	–	17	2·26	−0·47	0·35	28th	0	–
Aberdeen	2 0	48	13	0·86	−1·21	0·14	5th	0	–	15	2·62	+0·80	0·98	5th	0	–	15	1·04	−0·42	0·33	23rd	0	–
Falmouth	1 10	167	15	0·45	−1·98	0·06	16th	0	–	11	1·97	−0·60	0·47	7th	0	–	12	2·12	−0·43	0·56	11th	0	–
Stonyhurst	1 9	377	15	0·82	−1·63	0·23	30th	0	–	25	3·14	+0·74	0·55	20th	0	–	20	4·13	+0·43	1·54	29th	1	29th
Kew	1 10	20	10	0·39	−1·03	0·07	26th	0	–	13	1·40	−0·43	0·41	7th	0	–	12	2·94	+0·55	1·04	4th	1	4th
Telegraphic Reporting Stations.																							
Sumburgh Head	1 9	170	15	2·01	+0·14	0·42	4th	0	–	15	1·55	+0·16	0·35	1st	0	–	12	2·90	+1·81	1·03	13th	1	13th
Stornoway	1 0	30	17	1·87	−0·45	0·35	5th	0	–	18	1·46	−0·36	0·19	4th	0	–	17	2·76	+0·29	0·43	27th	0	–
Thurso	1 9	25	21	2·31	+0·54	0·44	4th	0	–	22	1·87	+0·69	0·37	1st	0	–	21	2·21	+0·71	0·42	27th	0	–
Wick	1 9	100	15	1·63	+0·29	0·35	12th	0	–	14	1·50	+0·19	0·50	2nd	0	–	13	1·26	+0·01	0·28	24th	0	–
Nairn	1 2	44	16	0·93	−0·75	0·12	4th	0	–	15	1·58	−0·01	0·28	5th	0	–	12	1·46	+0·27	0·57	13th	0	–
Leith	1 2	21	7	0·22	−1·26	0·05	2nd	0	–	14	2·29	+0·46	0·52	22nd	0	–	14	1·04	−0·36	0·43	27th	0	–
Shields	10 0	107	18	1·04	−0·78	0·24	22nd	0	–	20	2·07	−0·06	0·48	5th	0	–	11	0·96	−1·02	0·23	13th	0	–
York	1 9	53	14	0·65	−0·91	0·17	6th	0	–	16	1·75	−0·14	0·46	5th	0	–	13	0·93	−0·99	0·23	29th	0	–
Scarborough	1 0	130	12	0·89	−0·47	0·23	26th	0	–	17	2·37	+0·61	0·54	31st	0	–	10	0·86	−0·49	0·31	12th	0	–
Nottingham	0 5	162	12	0·76	−0·94	0·15	17th	0	–	15	2·49	+0·59	0·43	3rd	0	–	11	2·71	+0·20	1·60	3rd	1	3rd
Ardrossan	1 2	13	11	0·32	−2·25	0·08	15th	0	–	20	2·87	+0·49	0·64	22nd	0	–	15	1·29	−0·52	0·23	9th	0	–
Greencastle	7 6	70	16	0·88	−1·50	0·15	5th & 14th.	0	–	19	3·43	+1·49	0·56	22nd	0	–	15	2·10	+0·03	0·45	22nd	0	–
Donaghadee	1 9	33	6	0·21	?	0·08	16th	0	–	17	2·31	?	0·59	4th	0	–	21	1·12	?	0·17	9th	0	–
Kingstown	3 5	50	9	0·55	−1·11	0·22	17th	0	–	12	1·12	−1·46	0·25	30th	0	–	12	0·68	−0·89	0·25	12th	0	–
Holyhead	1 9	45	5	0·45	−1·23	0·32	17th	0	–	13	1·29	−0·69	0·31	4th	0	–	15	0·88	−0·27	0·17	18th	0	–
Liverpool	0 6	180	8	0·47	−1·18	0·18	16th	0	–	15	1·12	−1·08	0·18	4th	0	–	14	1·54	+0·29	0·64	29th	0	–
Roche's Point	1 9	23	10	1·73	−0·89	0·57	13th	0	–	14	2·37	−2·71	0·62	4th	0	–	13	2·88	+1·79	0·45	18th	0	–
Pembroke	1 2	125	10	0·57	−1·28	0·24	16th	0	–	15	2·42	−0·52	0·81	4th	0	–	17	0·80	−1·29	0·20	10th	0	–
Portishead	1 9	48	12	0·48	?	0·22	17th	0	–	13	2·27	?	0·57	7th	0	–	10	1·88	?	0·72	3rd	0	–
Scilly	1 9	100	11	0·31	?	0·16	13th	0	–	15	1·65	?	0·51	20th	0	–	13	1·35	?	0·50	13th	0	–
Plymouth	10 0	75	10	0·44	−1·73	0·15	16th	0	–	11	1·48	−1·67	0·50	7th	0	–	10	1·69	+0·92	0·39	11th	0	–
Portsmouth	1 0	16	6	0·69	−0·70	0·30	17th	0	–	13	1·23	−0·67	0·42	7th	0	–	11	1·58	+0·25	0·32	2nd	0	–
Dover	23 0	46	19	1·56	+0·08	0·30	27th	0	–	10	1·75	−0·60	0·71	7th	0	–	8	1·60	+0·13	0·82	4th	0	–
London	1 2	73	13	0·59	−0·85	0·12	4th	0	–	13	1·49	−0·39	0·59	7th	0	–	10	2·70	+1·25	0·72	29th	0	–
Oxford	0 11	209	12	0·55	−1·15	0·13	17th	0	–	14	2·31	+0·22	0.49	7th	0	–	12	2·73	+0·52	1·20	29th	1	29th
Cambridge	1 0	85	13	0·76	−0·65	0·15	7th	0	–	17	1·83	+0·21	0·23	4th, 17th, & 21st.	0	–	11	1·63	−0·23	0·41	4th	0	–
Yarmouth	3 3	11	17	1·10	−0·45	0·31	26th	0	–	16	2·28	+0·38	0·53	31st	0	–	8	1·02	−0·78	0·53	29th	0	–
Extra Stations. (Information supplied by societies, private individuals, and others.)																							
Barnstaple	0 8	31	10	1·11	−1·13	0·40	16th	0	–	11	2·30	+0·01	0·60	20th	0	–	11	1·50	−0·81	0·63	29th	0	–
Brighton	0 8	200	14	0·73	−0·70	0·24	17th	0	–	14	0·87	−1·18	0·24	7th	0	–	12	1·99	+0·19	0·45	30th	0	–
Chiswick	0 9	25	9	0·66	−0·85	0·17	6th	0	–	12	1·39	−0·57	0·44	7th	0	–	11	2·60	+0·61	0·73	17th	0	–
Dublin	3 0	57	8	0·50	−2·05	0·24	17th	0	–	17	0·91	−1·21	0·12	10th	0	–	13	0·94	−1·66	0·23	15th	0	–
Durham	4 6	335	16	1·21	−0·53	0·31	25th	0	–	17	2·53	+0·56	0·88	5th	0	–	13	1·63	−0·49	0·58	15th	0	–
Florence Court (co. Fermanagh).	1 9	289	11	1·12	−2·53	0·40	13th	0	–	9	1·32	−0·89	0·30	21st	0	–	8	1·39	−1·01	0·30	18th	0	–
Galway	8 2	30	13	3·22	+0·21	0·64	24th	0	–	16	2·40	−1·25	0·44	17th	0	–	21	3·54	+0·65	0·52	3rd	0	–
Guernsey	12 0	204	10	0·44	−1·40	0·11	25th	0	–	11	1·67	−0·90	0·85	7th	0	–	10	1·59	+0·12	0·66	13th	0	–
Helston	5 0	115	12	0·73	−1·61	0·15	8th	0	–	10	2·41	−0·23	0·60	21st	0	–	12	1·13	−0·42	0·71	14th	0	–
Jersey	36 11	39	10	0·51	−1·38	0·22	7th	0	–	15	0·98	−0·99	0·44	7th	0	–	13	2·16	+0·73	0·43	2nd	0	–
Norwich	30 0	53	14	0·93	−0·63	0·24	6th	0	–	13	1·56	−0·39	0·21	26th	0	–	8	1·68	−0·10	0·99	30th	0	–
Parsonstown	0 8	183	14	1·85	−0·07	0·49	17th	0	–	18	2·10	−0·36	0·44	6th	0	–	18	1·43	−0·38	0·27	4th	0	–
Rugby	3 0	383	8	0·80	−0·66	0·33	4th	0	–	17	2·53	+0·94	0·44	20th	0	–	15	3·64	+1·18	1·43	29th	1	29th
Sandwick (Orkney Islands).	2 0	78	17	1·44	−1·14	0·18	4th	0	–	14	1·71	−0·17	0·38	1st	0	–	13	1·82	−0·08	0·28	27th	0	–

PART 3.

The quarter commenced with a very uniform distribution of pressure, which was highest over the north of Spain; by the morning of the 2nd, however, the barometer had begun to fall briskly on our west and north coasts, and the wind backed to south and increased to a strong breeze at most stations in the districts named, and even to a slight gale at Valencia and Holyhead. The only remarkable circumstance about this gale was the exceptionally heavy rainfall at Valencia, which amounted in the 24 hours to 2·37 ins. at the telegraphic station, and to 1·91 at the observatory. It will be seen from Plate XXXVII. that it fell almost entirely between 9 p.m. and midnight on the 2nd.

This depression gradually moved eastwards, but an independent small area of low pressure appears to have been formed over the south-east of England on the 4th, bringing, as usual, thunderstorms with it, the rainfall at Nottingham being exceptionally heavy. The number of minute oscillations of pressure at almost all the observatories on the 3rd and 4th appear worthy of notice.

July 5. We find two systems of depression in our neighbourhood; one near the Naze, the other advancing over the south of Ireland. It is remarkable that while this latter disturbance caused a considerable fall of the barometer, it was accompanied by comparatively little wind, though it brought rain to almost all stations. The system passed on to Scotland, where its centre was found next morning, and a brisk recovery set in over our Islands generally.

July 6. The recovery of pressure in the course of this day was much more brisk in the north than in the west, so that gradients for southerly winds increased to such a degree that the wind rose to a gale at Valencia and blew very smartly till noon.

Observatories, July 6-7, 1873.	Velocity 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	11 a.m. (6th).	S. by W.	Midnt. (6th).	S. by E.	49	12	1 p.m. (7th).	S.W.	26	5 a.m. (7th).	S.S.E.	54	At Armagh velocity of 30 miles was reached twice, at 10 and 11 a.m. 7th (32 and 30 miles) from S. by W. and S.
Sandwick	Noon (7th).	S.E. by S.	—	—	—	—	4 p.m. (7th).	S.E.	4	1 p.m. (7th).	S.E.	34	—
Holyhead.	3 p.m. (5th).	S.S.E.	10 p.m. (5th).	S. by E.	46	3	3 a.m. (6th).	S.W.	12	11 p.m. (5th).	S.	50	—
	4 a.m. (7th).	S. by E.	—	—	—	—	9 a.m. (8th).	S.	29	9 a.m. (7th).	S. by E.	42	For 1 hour only.
Alnwick Castle.	—	—	—	—	—	—	—	—	—	—	—	—	Velocity of 30 miles exceeded twice, at 7 a.m. and 1 p.m. 6th, direction W.S.W.

During the next few days very little change occurred, and, except in the west and north, the weather was dry; but between the 9th and 12th some minor depressions passed over us, presenting no unusual features of interest. The weather was cold for the time of year, and rain fell at most stations. Thunderstorms were very prevalent on the 12th.

July 13. A considerable change in the conditions of pressure was observable, as, owing to the advance of a local depression to the entrance of the Channel, the barometer fell briskly in that region (Plate XXXIX.), and the isobars assumed the form exhibited on Fig. 38, while a strong S.W. breeze blew on the west coast of France. During the day the disturbance crossed over the central parts of England, and the rainfall was exceptionally heavy on its southern side, more than an inch being reported from most of our southern stations, accompanied by fresh south-westerly gales.

It appears from the barograms that this disturbance moved in a north-easterly direction, for the minimum was recorded at Stonyhurst nine hours after its passage over Falmouth. By 8 a.m. on the 14th we find the centre lying off the extreme south-west point of Norway, while the strong breezes on its south and east sides have increased to the force of a gale from S.W. to S.E. in Denmark.

This depression was succeeded by another, which lay off the east of Scotland at 8 a.m. on the 15th, and, passing eastwards by the next morning, was followed by a third and larger one, that skirted our northern coasts on the 16th and 17th, accompanied by a continuance of rainy weather and occasional thunderstorms. On the 17th, fog was very prevalent on our south-west coasts.

These conditions were succeeded by a few days of very hot weather, the temperature reaching a maximum of 88°·1 at Stonyhurst, and 86°·5 at Kew on the 22nd, on which day as much as 91° was registered by Mr. Lowe at Nottingham.

The breaking up of this system showed some features of similarity to that which occurred at the end of August 1869 (*vide* Quarterly Weather Report, 1869, p. 63), but in the present case the barometrical changes were not of equal amount. There are, however, some details of especial interest. In 1869 the failure of the barogram at Aberdeen prevents our tracing the variations in pressure at that observatory during the 28th and 29th of August, but the standard readings show that it was very unsteady. In the present case Plate XLI. gives abundant evidence of a like state of things on the 23rd, and similar though somewhat less marked oscillations are observed in the barograms for Armagh, Stonyhurst, and Falmouth some hours previous to those recorded at Aberdeen. The 8 a.m. telegraphic records show that two distinct minima of pressure lay over us at that time, one in Scotland, the other over the eastern central parts of England. Violent thunderstorms occurred in the western and northern parts of the kingdom, and slighter ones elsewhere; but the rainfall which accompanied them was not heavy, except in a few places.

The wind drew to north on our west coast, and at night the temperature fell extremely quickly at Glasgow and Stonyhurst; the total change between the maximum of the 22nd and the minimum of the early hours of the 24th being 33° at the former and 33°·8 at the latter station. It will be noticed that this sudden alteration of temperature was not so serious as in 1869, when the range within about the same period of time reached the high figures of 46°·4 at Stonyhurst and 41°·1 at Glasgow (*l.c.* p. 79).

After this complicated series of disturbances had passed off, the barometer again fell in the west, and the southerly current was restored over the United Kingdom, commencing, as usual, in the west, and accompanied by rain in that and the northern parts of the country. For the next fortnight there was but little to remark; the weather was moderately warm, but the sky generally cloudy, with frequent showers. After the 1st of August the area of highest pressure lay rather further to the north-westward than it had previously done, the wind drew into W. or N.W., and the weather was dry in the south.

On the 7th and 8th of August the heat was again very great over Great Britain, but on the 9th the sudden appearance of an extensive depression over the North Sea, very near the mouth of the Skager Rack, drew the wind in these islands into north-west, and caused a considerable fall of temperature. This disturbance is barely traceable in our continuous records, but it appears to have moved subsequently in an easterly direction, for its position at 8 a.m. on the 10th was over the centre of Sweden (Fig. 40, Plate XLV.), the lowest reading being reported from Stockholm with a fall of 0·4 in. during the previous 24 hours. At this time the depression had become much more marked, and a stiff westerly gale was blowing on the eastern shores of the North Sea.

This was soon followed by another area of low pressure which passed over our northern stations during the night of the 12th (Plate XLV.), but caused no wind of any consequence.

Temperature, which had fallen very low, especially in Scotland on the morning of the 11th, rose speedily and was generally high on the 15th and 16th. The weather was characterized by the continued passage of small depressions, most of which only skirted our northern coasts, though some of them followed a more southern track; they were accompanied by frequent showers, and on the 15th there was a slight gale from south at Valencia and Holyhead for a few hours.

August 16. We see from Plate XLVI. that pressure was remarkably unsteady on this day; and although thermometrical readings reached a great height in the south of England, we have but few records of electrical disturbance, and those not of a serious character. Heavy showers, however, fell at several stations. The range from the maximum temperature of the 16th to the minimum of the 17th was very great at Kew, exceeding 30°, the lowest reading having occurred in the interval which elapsed between two small depressions, one of which lay to the southward of Norway, and the other over the south of Ireland at 8 a.m. on the 17th.

August 20. We see from Fig. 41, Plate XLVII., that two depressions again existed over our area, one of which had advanced over central England during the previous days and now lay close to Skudesnaes, while the other was situated over the south of Ireland. Each of these had its own circulation of wind, but in neither did the force exceed that of a strong breeze. This disturbance gradually passed off and the barometer rose steadily in the north and north-east, so that on the morning of the 23rd a small area of low pressure lying off the entrance of the Channel, but changing its place slightly, was sufficient to draw on easterly winds which lasted for the next two days, while heavy thunderstorms occurred in several parts of England.

One series of the latter deserves some words of notice. The rainfall of August 24th is mentioned by Mr. Symons in his British Rainfall for 1873 as very remarkable owing to the peculiarity of its distribution, and a map and diagrams are given to illustrate it. From these it appears that the region of excessive precipitation was a narrow strip about 20 miles broad, extending in a nearly due north and south direction from near Newhaven in Sussex to Louth in Lincolnshire. Along this belt the average fall was 1·16 ins., while along the two zones, 20 miles wide, on either side of it the average fall was only 0·58 ins.

Mr. Symons hardly mentions the occurrence of thunderstorms on the 24th, but it appears that the map given by him represents the result in rainfall of a series of these disturbances, of unusual severity, whose tracks converged, and one of which did considerable damage to the telegraph instruments at the offices in the Valley of the Colne. At 6 p.m. on the 24th (Plate XLVIII.) the barogram at Kew shows a sudden oscillation simultaneously with a rapid fall of the thermometer, a temporary change of wind, and a downpour of rain, whilst at Cambridge the observer reports a violent thunderstorm lasting all night, and all the telegraphic stations in the south-east of England report very heavy thunder and lightning, accompanied, in many cases, by torrents of rain.

August 26. The barometer began to give way in the north, and the area of the depression of which we have lately spoken seems to have become more contracted and to have moved north-westwards to the south of Ireland, while slight southerly gales set in at Brest and Pembroke (Fig. 42, Plate XLVIII.). This small depression continued its advance speedily, first to the north-westward and then to the north-eastward, till at 8 a.m. on the 27th it lay over the north of Scotland, bringing on a general south-west wind over the United Kingdom, with a continuance of thunderstorms and rain. Then succeeded a new and more serious disturbance whose course lay well to the southward, its centre passing Valencia at midnight on the 27th, and the lowest readings at 8 a.m.

on the 28th being situated over St. George's Channel, while a fresh westerly gale was blowing in the west of England (Fig. 43). The following are the instrumental records of this gale:—

Observatories. Aug. 27-28, 1878.	Velocity 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia.	8 p.m. (27th).	S.S.W.	10 p.m. (27th).	S.	44	2	1 a.m. (28th).	S.W. by W.	5	10 p.m. (27th).	S.	44	The wind subsequently blew hard from N.W., but the anemometer is sheltered in that direction by high land.
	7 a.m. (28th).	W.	—	—	—	—	Noon (28th).	W.	5	9 a.m. (28th).	W.	37	Anemometer stopped for repairs at 2 p.m. 28th.
Falmouth.	3 p.m. (27th).	S.	—	—	—	—	6 p.m. (27th).	S.W. by S.	3	3 p.m. (27th).	S.	35	—
	4 a.m. (28th).	S.W.	11 a.m. (28th).	W.	46	6	8 p.m. (28th).	W. by N.	16	2 p.m. (28th).	W. by N.	52	
Yarmouth	1 p.m. (27th).	S.	—	—	—	—	3 p.m. (27th).	S. by W.	2	1 p.m. (27th).	S.	31	—
Holyhead	—	--	—	—	—	—	—	—	—	—	—	—	Instrument not in action from 11 a.m. 27th to noon 28th.

The barograms in the south-west and south showed a rapid recovery after the occurrence of the minimum, which was not exhibited subsequently in the north. By the morning of the 29th, the area of depression had advanced to the North Sea (Fig. 44, Plate XLIX.), while the strong westerly winds extended to France and Holland. The disturbance brought a good deal of rain, and was followed by thunder and hail in the south of England.

A considerable change of weather ensued, and, after Sept. 1st, the barometer ranged high at our western stations, while a region of low pressure was situated over the eastern shores of the North Sea. The result was that northerly winds and cold weather set in over these islands, and in the course of the 5th a fresh fall of the barometer having occurred over southern Norway, the winds above mentioned increased to the force of a slight gale on our eastern coasts.

The most remarkable feature during the next few days was the decrease of temperature at Glasgow during the very early hours of the 7th (Plate L.), when the thermometer fell nearly to the freezing point. At no other observatory excepting Stonyhurst do we find a trace of this change, but from the telegraphic reporting stations in the north of England and at Leith a very low minimum reading was reported; and on the following morning a similar chill was experienced at Stonyhurst (Plate LI.), York and Nottingham.

Sept. 9. The barometer fell in all parts of our islands, and an extensive depression passed slowly over Scotland, the centre reaching Skudesnaes by the morning of the 11th. Simultaneously with this we find a remarkable little oscillation passing up the Channel with great rapidity on the morning of the 11th, causing a slight westerly gale with rain at Falmouth, and rather strong south-westerly breezes for a short time at our other southern stations. Its centre passed over or near London shortly before 6 a.m., and was accompanied by a heavy shower. The barometer was rather unsteady during the 13th, especially at Falmouth, where heavy rain fell during the forenoon, and on the 14th a remarkable double hollow appears in the barogram at Valencia, which is only shown in similar detail at Falmouth. These deflections in the barometric curves appear to be owing to the advance over us of a very complicated depression having two distinct minima, one of which lay over the Yorkshire coast, and the other over St. George's Channel at 8 a.m. on the 14th. The motion of this depression during the succeeding 24 hours was very irregular, being first to the west-south-westward and then to the east-north-eastward again, but its position at 8 a.m. on the 15th is seen on Fig. 45, Plate LII., when slight gales were blowing all round it except on the northern side.

By the following morning the centre had advanced to the coast of Denmark (Fig. 46), while the north-west winds in its rear had risen to considerable force in the west of England about noon on the 15th. The disturbance was accompanied by heavy rain, with thunderstorms and hail in several places.

Observatories. Sept. 14-15, 1873.	VELOCITY 30-40 Miles per Hour.		VELOCITY Exceeding 40 Miles per Hour.				VELOCITY Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	MAXIMUM VELOCITY.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	10 p.m. (14th).	W.N.W.	—	—	—	—	2 a.m. 15th.	N. by W.	4	11 p.m. (14th).	N.W. by W.	44	For 1 hour only.
Aberdeen	3 p.m. (14th).	E.N.E.	5 p.m. (14th).	E. by N.	43	2	10 p.m. 14th.	E. by N.	7	6 p.m. (14th).	E. by N.	44	Wind backed to N. and N.W. on the morning of the 15th, and at midnight 15th freshened to 30 miles, continuing for 3 hours from W.N.W.
Falmouth	5 a.m. (15th).	W.S.W.	9 a.m. (15th).	W.N.W.	47	5	8 p.m. 15th.	W.N.W. 15th.	15	11 a.m. (15th).	N.W. by W.	51	On 14th velocity of 30 miles reached at 1 p.m. from W., and 32 miles at 8 p.m. S. by W.
Holyhead	Noon (15th).	N.W. by N.	4 p.m. (15th).	N.W.	44	5	7 a.m. 16th.	W.N.W.	19	4 p.m. (15th).	N.W.	47	—
Seaham	3 p.m. (15th).	N. by W.	—	—	—	—	6 p.m. 15th.	N. by W.	3	3&4 p.m. (15th).	N. by W. and N.	40	—

The depression just described was speedily succeeded by another on the 17th and 18th, which passed over our northern stations and caused an increase of wind to a stiff breeze from the westward at almost all the observatories, but without attaining the force of a serious gale anywhere. The amount of rain which fell was, however, not nearly so great as in the previous case.

We had now another great change of weather, and, after the passage over the most northern regions of a well-marked depression on the 20th, the barometer rose at all stations, and for a few days, from the 22nd to the 25th, an anticyclone passed slowly over us to the eastward, the weather becoming foggy and dry. In fact on the 24th and 25th no rain was reported from any of the telegraphic observing stations, a circumstance which had not occurred previously during this very wet quarter.

The barometer fell slowly in the rear of this anticyclone, and by the morning of the 27th an area of low readings had advanced to the west coast of Scotland, producing a local southerly gale which, however, blew very hard at Stornoway on the evening of the 27th. Another area of high pressure appeared over England on the 29th, but its stay was very short, and at the end of the month we had a brisk fall of the barometer on our western coasts, with a slight southerly gale and very heavy rain in that district, more than an inch being reported from all the stations in the north-west of these islands.

Thus closed a quarter remarkable for the number and severity of its thunderstorms, the almost constant occurrence of two or more depressions simultaneously in our neighbourhood, and for the suddenness of some of its changes in temperature and wind.

REMARKS.

The following table gives the number of hours during which the wind reached or exceeded the velocity of 30 miles per hour, irrespective of its direction, for each month and for the entire quarter.

Stations.	July.	Aug.	Sept.	Total.	Stations.	July.	Aug.	Sept.	Total.
Valencia - -	127	[a] 56?	88	271?	Stonyhurst -	1	1	16	18
Armagh - -	2	—	—	2	Halifax - -	—	1	7	8
Glasgow - -	1	1	15	17	Seaham - -	2	1	25	28
Aberdeen - -	—	—	21	21	Alnwick Castle -	31	44	62	137
Sandwick - -	24	28	83	135	Kew - - -	1	3	—	4
Falmouth - -	7	50	39	96	Yarmouth - -	14	5	6	25
Holyhead - -	158	106	159	423					

[a] Doubtful, 53 hours lost, 2 p.m. 28th to 7 p.m. 30th; velocity probably high.

The amount of strong wind was nearly identical with that for the same period in 1872, both being greater than that registered at the corresponding season in any year since 1869. The highest figure was at Holyhead, then followed Valencia, and next to this came Sandwick and Alnwick Castle with nearly equal amounts. At Armagh and Kew the rare occurrence of strong winds is very striking.

Pressure.—

July.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	ins.	ins.	ins.	d. h.	ins.	d. h.	ins.
Valencia - -	29·857	— ·159	30·213	18th, 10 & 11 p.m.	29·379	5th, 4 p.m.	0·834
Armagh - -	·825	— ·090	·100	16th, noon.	·398	5th, 10 p.m.	0·702
Glasgow - -	·793	— ·079	·075	21st, 10 a.m.	·431	6th, 2 a.m.	0·644
Aberdeen - -	·798	— ·080	·075	21st, 9 p.m.	·424	14th, 6 a.m.	0·651
Falmouth - -	·991	— ·057	·282	19th, 9 & 10 a.m.	·487	13th, 11 a.m. and noon.	0·795
Stonyhurst - -	·886	— ·024	·177	21st, 7 a.m.	·432	13th, 8 p.m.	0·745
Kew - -	29·971	— ·013	30·209	21st, 8 a.m.	29·382	13th, 7 p.m.	0·827

Pressure was below the average, but the deficiency did not amount to 0·1 inch except at Valencia; at Kew it was very slight indeed. The range was moderate, greatest at Valencia and least at Glasgow.

August.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	ins.	ins.	ins.	d. h.	ins.	d. h.	ins.
Valencia - -	29·896	—·068	30·272	9th, 7-9 p.m.	29·218	27th, 11 p.m.	1·054
Armagh - -	·850*	—·014	·163	1st, 10 p.m.	·370	28th, 3 a.m.	0·793
Glasgow - -	·778	—·039	·054	24th, 11 p.m.	·343	28th, 3 a.m.	0·711
Aberdeen - -	·762	—·062	·132	25th, 1 p.m.	·320	29th, 5 a.m.	0·812
Falmouth - -	·998*	—·017	·302	2nd, 11 a.m.	·519	28th, 7 a.m.	0·783
Stonyhurst - -	·861	—·024	·151	2nd, 2 p.m.	·343	28th, 3 p.m.	0·808
Kew - - -	29·945	—·011	30·218	17th, 9 a.m.	29·481	28th, 3 p.m.	0·737

* Mean of 29 days only.

Readings were again below their normal heights, but only to the extent of ·068 inch at Valencia, where the deficiency was greatest. The minimum readings were all registered within 30 hours of each other. The range was generally somewhat less than usual; it amounted to an inch at Valencia only, and was least at Glasgow.

September.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	ins.	ins.	ins.	d. h.	ins.	d. h.	ins.
Valencia - -	29·968	+·133	30·546	22nd, 10 a.m.	29·228	14th, midt.	1·318
Armagh - -	·925	+·074	·599	22nd, 9 a.m.	·280	14th, midt. 15th, 2 a.m.	1·319
Glasgow - -	·843	+·041	·493	22nd, 8 a.m.	·264	15th, 3 a.m.	1·229
Aberdeen - -	29·802*	-·010	·444	21st, midt.	·193	17th, 6 p.m.	1·251
Falmouth - -	30·013	+·003	·525	22nd, 11 a.m.	·211	15th, 6 a.m.	1·314
Stonyhurst - -	29·911	+·005	·565	22nd, 9 a.m.	·212	15th, 7 a.m.	1·353
Kew - - -	29·978	+·004	30·555	22nd, 10 a.m.	29·240	15th, 1 p.m.	1·315

* Mean of 28 days only.

In this month the means were above their normal values except at Aberdeen, but only to a very slight extent at the observatories in Great Britain, while at Valencia the excess was more than 0·1 inch. The maxima were all recorded on the 22nd before noon. The minima were felt on the 15th except at Aberdeen. The range was extremely uniform but greatest at Stonyhurst.

Temperature. July.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	d. h.	°	d. h.	°
Valencia - -	58·5	- 1·5	71·8	21st, 3 p.m.	48·8	16th, 5 a.m.	23·0
Armagh - -	58·5	- 1·9	74·4	22nd, 3 p.m.	46·2	14th, 5 a.m.	28·2
Glasgow - -	58·2	+ 1·4	81·4*	22nd ?	44·1	5th, 4 a.m.	37·3
Aberdeen - -	58·0	+ 2·1	77·2	21st, 3 p.m.	43·4	15th, 4 a.m.	33·8
Falmouth - -	60·5	—	76·0	22nd, 1 p.m.	51·0	15th, 6 a.m.	25·0
Stonyhurst -	60·0	+ 2·2	88·1*	22nd ?	46·3	29th, 4 a.m.	41·8
Kew - - -	63·7	+ 1·9	86·5	22nd, 2 p.m.	47·9	19th, 4 a.m.	38·6

* Corrected reading of max. therm. obtained from weather sheets ; trace faint for eight hours.

Temperature was nearly 2° below the average in Ireland, and about as much above it in Great Britain. The maxima all occurred within an interval of 24 hours on the 21st and 22nd. The range was greatest at Stonyhurst and least at Valencia, where the maximum reading was 16° lower than in Lancashire.

August.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	d. h.	°	d. h.	°
Valencia - -	58·7	– 0·2	68·2	24th, 3 p.m.	51·0	28th, 8 p.m. and 11 p.m.	17·2
Armagh - -	57·2	– 1·7	69·7	7th, 3 p.m.	46·6	29th, 6 a.m.	23·1
Glasgow - -	56·2*	– 0·9	68·6	7th, 3 p.m.	41·5	31st, 6 a.m.	27·1
Aberdeen - -	56·3†	+ 0·3	68·0	6th, 3 p.m.	39·2‡	11th, 4 a.m.	28·8
Falmouth - -	60·6†	—	73·5	7th, 4 p.m.	50·9	29th, 6 a.m.	22·6
Stonyhurst -	57·8	+ 0·6	70·3	7th, 6 p.m.	46·4	31st, 6 a.m.	23·9
Kew - - -	62·4	+ 1·3	82·5	8th, 1 p.m.	49·4	29th, 5 a.m.	33·1

* Mean of 25 days only.
† Mean of 29 days only.
‡ Doubtful; instrument out of action immediately after 6 a.m.

The month exhibited very nearly the ordinary temperature, being slightly cool in Ireland and at Glasgow, and warm elsewhere. The range was comparatively small at most stations, and only amounting to 17°·2 at Valencia. It was greatest at Kew.

September.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	h. d.	°	d. h.	°
Valencia - -	55·1	– 1·3	63·4	24th, 2 p.m.	42·0	29th, 1 a.m.	21·4
Armagh - -	51·8	– 3·4	67·0	27th, 2 p.m.	37·6	22nd, 5 a.m.	29·4
Glasgow - -	51·4	– 3·9	68·7	27th, 1 p.m.	35·4	7th, 6 a.m.	33·3
Aberdeen - -	50·7*	– 1·9	64·1	27th, 2 p.m.	39·6	22nd, 2 a.m.	24·5
Falmouth - -	56·1*	—	64·7	20th, noon.	46·3	29th, 5 a.m.	18·4
Stonyhurst - -	52·5	– 1·4	68·8	27th, 3 p.m.	33·7	29th, 6 a.m.	35·1
Kew - - -	54·4	– 2·1	70·2	27th, 2 p.m.	39·2	24th, 6 a.m.	31·0

* Mean of 28 days only.

September was decidedly cold, the deficiency amounting to nearly 4° in the north-west. The maxima occurred on the 27th except at Falmouth and Valencia, but at almost all the observatories they were lower than in any of the four previous years. The date of the minimum was irregular. The range was rather small, especially at Falmouth; it was greatest at Stonyhurst.

The following is a comparison of the five-day means for Kew (civil time) with those for 43 years at Greenwich.

Dates.	Variation.	Dates.	Variation.	Dates.	Variation.
June 30–July 4	+ 1°·0	July 30–Aug. 3	+ 1°·3	Aug. 29–Sept. 2	+ 0°·2
July 5–9	+ 1·0	Aug. 4–8	+ 4·9	Sept. 3–7	− 5·1
„ 10–14	− 1·4	„ 9–13	− 0·7	„ 8–12	− 1·9
„ 15–19	− 1·1	„ 14–18	+ 1·9	„ 13–17	− 3·2
„ 20–24	+ 8·2	„ 19–23	− 0·3	„ 18–22	− 0·1
„ 25–29	+ 1·8	„ 24–28	+ 3·1	„ 23–27	− 1·6

The only fact which calls for special notice in this table is the excess of heat between the 20th and 24th of July. The month of September was rather colder than the average, as appears also from the monthly means.

RAIN.

The quarter was excessively wet at almost all stations, excepting those in the east and south of England, with Holyhead and Pembroke.

In July the amount was as much as 200 per cent. in excess at Valencia, and more than 100 per cent. at Armagh and Galway. At a few stations, however, we see a minus sign.

In August there were only two days without rain at Valencia, Armagh, and Donaghadee, but the excess in amount of rain was nowhere very great except at Barnstaple. The only stations which exhibit a fall exceeding an inch on the 24th, the day which has been mentioned at p. 36, are Cambridge, Brighton, and Guernsey.

In September several records show a deficiency which was very considerable in Wales and the west of England. It will be seen that the fall on the 30th was more than an inch at all the stations in the north-west, as well as at Parsonstown, Valencia, and Leith.

RAINFALL, 1873.

Position of Gauges.				July.						August.						September.					
Names of Stations.	Height of Gauge. Above Ground.		Height of Gauge. Above Mean Sea Level.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Day.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Day.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 hours.	Day.
Observatories.																								
	ft.	in.	ft.																					
Valencia - -	2	0	11	24	8·70	+6·03	1·91	2nd	2	2nd & 28th	29	5·76	+1·20	0·90	22nd	0	—	19	5·63	+0·48	1·15	14th	2	14th & 30th
Armagh - -	2	2	204	26	5·66	+3·14	0·70	22nd	0	—	29	5·58	+2·61	1·14	18th	1	18th	20	2·71	+0·37	1·01	30th	1	30th
Glasgow - -	1	10	180	26	4·62	+1·47	0·68	17th	0	—	25	4·26	+0·02	0·84	7th	0	—	17	5·15	+1·52	1·63	30th	1	30th
Aberdeen -	2	0	48	18	4·12	+1·91	0·71	22nd	0	—	22	4·53	+1·55	0·95	21st	0	—	23	3·56	+1·16	0·70	30th	0	—
Falmouth -	1	10	167	20	4·06	+1·42	1·47	24th	1	24th	22	5·13	+2·34	0·75	31st	0	—	18	3·03	−0·13	1·31	12th	1	12th
Stonyhurst -	1	9	377	24	5·09	+1·23	0·79	3rd	0	—	28	6·28	+1·66	0·77	25th	0	—	23	3·14	−1·25	0·46	1st	0	—
Kew - -	1	10	20	11	2·10	+0·27	1·06	13th	1	13th	17	2·06	−0·14	0·63	24th	0	—	9	2·38	−0·25	0·88	14th	0	—
Telegraphic Reporting Stations.																								
Sumburgh Head	1	9	170	19	4·12	+2·77	0·71	26th	0	—	15	3·37	+0·97	0·75	12th	0	—	15	2·31	−0·05	0·43	17th	0	—
Stornoway -	1	0	30	24	4·34	+1·81	0·57	14th	0	—	25	4·81	+1·81	0·64	5th	0	—	26	3·78	+0·18	0·60	10th	0	—
Thurso - -	1	9	25	25	2·73	+1·42	0·80	22nd	0	—	24	3·73	+0·93	0·54	7th	0	—	26	4·55	+1·27	0·50	17th	0	—
Wick - -	1	9	100	21	2·57	+1·19	0·60	31st	0	—	21	3·09	+0·77	0·55	31st	0	—	24	2·65	+0·27	0·29	7th	0	—
Nairn - -	1	2	44	22	3·77	+2·26	1·22	27th	1	27th	15	2·54	−0·31	0·71	18th	0	—	23	5·46	+2·81	0·88	14th	0	—
Leith - -	1	2	21	20	2·76	+0·80	0·66	30th	0	—	18	3·28	+1·25	0·55	25th	0	—	16	3·83	+1·40	1·04	30th	1	30th
North Shields -	10	0	107	17	1·85	+0·04	0·30	25th	0	—	18	2·47	+0·03	0·44	25th	0	—	15	1·28	−0·96	0·27	13th	0	—
York - -	1	9	53	17	2·47	+1·00	0·74	25th	0	—	18	2·05	−0·72	0·32	24th	0	—	11	1·85	−0·55	0·43	13th	0	—
Scarborough* -	1	0	130	?	2·19	−0·22	?	?	0	—	17	2·09	−0·75	0·66	18th	0	—	12	2·74	+0·37	1·32	15th	1	15th
Nottingham -	0	5	162	16	3·01	+0·61	1·43	3rd	1	3rd	22	2·69	−0·11	0·69	18th	0	—	13	1·65	−0·95	0·47	15th	0	—
Ardrossan -	1	2	13	24	4·79	+2·36	0·96	17th	0	—	23	5·06	+1·25	0·74	12th	0	—	16	4·54	+0·50	1·20	30th	1	30th
Greencastle -	7	6	70	26	4·82	+2·20	0·49	9th	0	—	27	5·98	+2·69	1·10	28th	1	28th	23	4·49	+1·14	1·41	30th	1	30th
Donaghadee -	1	9	33	23	2·95	?	0·59	17th	0	—	29	5·42	?	0·64	20th	0	—	12	1·78	?	1·12	30th	1	30th
Kingstown -	3	5	50	19	3·18	+1·72	1·20	22nd	1	22nd	21	3·93	+1·55	0·98	24th	0	—	13	2·17	−0·16	1·22	13th	1	13th
Holyhead -	1	9	45	20	2·10	+1·14	0·32	8th	0	—	19	2·93	+0·86	0·52	17th	0	—	13	1·52	−2·15	0·27	13th	0	—
Liverpool (Bidston Observatory).	0	6	180	17	3·71	+2·51	1·10	30th	1	30th	25	2·79	+0·65	0·41	17th	0	—	19	3·73	+0·44	1·39	3rd	1	3rd
Roche's Point -	1	9	23	22	4·04	+2·54	0·34	30th	0	—	21	4·79	+2·55	0·82	26th	0	—	15	3·75	−1·62	0·90	12th	0	—
Pembroke -	1	2	125	19	2·27	−0·19	0·54	3rd	0	—	23	3·67	+0·30	0·98	24th	0	—	17	2·30	−2·68	0·49	14th	0	—
Portishead -	1	9	48	16	4·30	?	1·02	12th	1	12th	20	4·50	?	0·98	18th	0	—	15	3·77	?	0·57	10th	0	—
Scilly - -	1	9	100	21	2·63	?	0·65	24th	0	—	21	3·35	?	0·56	31st	0	—	16	1·64	?	0·43	14th	0	—
Plymouth -	10	0	75	16	3·20	+1·31	1·46	25th	1	25th	21	3·75	+1·25	0·59	24th & 31st	0	—	13	1·21	−3·71	0·32	13th	0	—
Portsmouth -	1	0	16	8	1·88	+0·08	1·12	13th	1	13th	13	1·55	−0·46	0·27	24th	0	—	13	2·31	−1·09	1·07	14th	1	14th
Dover - -	23	0	46	10	1·18	−0·82	0·42	13th	0	—	15	2·13	−0·66	0·54	10th	0	—	11	2·18	−0·29	0·75	15th	0	—
London - -	1	2	73	9	1·78	+0·01	0·84	13th	0	—	14	2·10	−0·22	0·47	18th	0	—	10	2·57	−0·04	0·92	14th	0	—
Oxford - -	0	11	209	14	2·23	+0·41	0·96	13th	0	—	19	2·84	+0·55	0·80	24th	0	—	14	1·82	−1·14	0·37	10th	0	—
Cambridge -	1	0	85	11	~~2·59~~	+0·45	1·11	13th	1	13th	16	2·81	+1·06	0·21	24th	1	24th	12	~~1·94~~	−0·11	0·38	7th	0	—
Yarmouth -	3	3	11	12	2·32	+0·46	0·87	13th	0	—	10	1·44	+0·50	0·47	12th	0	—	12	2·10	−0·58	0·45	14th	0	—
Extra Stations.																								
Barnstaple -	0	8	31	21	4·50	+2·25	0·74	3rd	0	—	24	7·09	+4·09	1·74	23rd	2	18th & 24th	20	3·16	−0·88	0·48	14th	0	—
Brighton -	0	8	200	10	1·82	−0·12	0·97	13th	0	—	14	2·92	+0·92	1·17	24th	1	24th	13	2·89	+0·21	1·05	14th	1	14th
Chiswick - -	0	9	25	10	2·25	−0·07	1·04	13th	1	13th	19	2·87	+0·46	0·69	24th	0	—	11	2·31	−0·19	0·96	14th	0	—
Dublin - -	3	0	57	25	3·41	+1·03	0·74	22nd	0	—	23	3·94	+1·40	0·93	24th	0	—	13	2·37	+0·05	1·18	13th	1	13th
Durham - -	4	6	335	13	2·73	+0·54	0·71	22nd	0	—	16	2·75	+0·24	0·58	31st	0	—	13	1·81	−0·96	0·32	30th	0	—
Florence Court (co. Fermanagh).	1	9	289	20	4·43	+1·45	0·48	7th	0	—	26	7·20	+3·62	1·02	26th	1	26th	15	3·03	−0·35	0·41	1st	0	—
Galway - -	8	2	30	24	6·47	+3·16	0·82	11th	0	—	24	6·28	+2·30	1·13	23rd	1	23rd	14	4·14	−0·49	1·32	29th	1	29th
Guernsey -	12	0	204	10	3·36	+1·78	1·22	13th	1	13th	15	5·09	+2·70	1·20	24th	2	23rd & 24th	15	2·33	−1·26	0·59	14th	0	—
Helston - -	5	0	115	15	3·98	+1·50	1·45	25th	1	25th	20	4·05	+1·32	0·75	26th	0	—	14	3·13	−0·02	0·70	13th	0	—
Jersey - -	36	11	39	10	5·05	+3·48	0·80	12th	0	—	13	4·53	+2·23	1·26	18th	1	18th	19	2·66	−0·34	0·65	14th	0	—
Norwich - -	30	0	53	10	1·96	−0·45	0·90	13th	0	—	12	1·80	−0·41	0·48	28th	0	—	12	3·09	+0·94	0·90	1st	0	—
Parsonstown -	0	8	183	23	4·19	+1·80	0·96	17th	0	—	27	4·90	+2·04	1·57	23rd	1	23rd	20	3·81	+1·01	1·48	30th	1	30th
Rugby - -	3	0	383	17	2·27	+0·23	0·73	13th	0	—	18	2·21	−0·40	0·40	19th	0	—	14	1·28	−0·52	0·27	15th	0	—
Sandwick -	2	0	78	18	2·39	+0·56	0·48	22nd	0	—	22	4·06	+1·15	0·90	12th	0	—	19	3·51	−0·29	0·48	17th	0	—

2·40/ 1·88/

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* Observer ill until July 10th, and rain allowed to accumulate till that date. Maximum fall in 24 hours, and number of rainy days cannot be inserted.

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PART 4.

At the commencement of October pressure varied from about 30·2 ins. in the south of France to 29·7 ins. over our western and northern stations, these conditions having set in after the passage of the anticyclone mentioned at p. 39 and shown in Fig. 49, Plate LV.

At 8 a.m. on the 1st two depressions were found, one lying over, or to the westward of Ireland, the other over the north of England and south of Scotland. A rapid increase of temperature had occurred over England, and a smaller change elsewhere. S. to S.W. winds prevailed in most places, but at the more northern of the Scotch stations easterly breezes were felt, blowing round the northern side of the northern depression.

During the next day or two the disturbance in the north travelled slowly to the east-north-eastward, while that in the west underwent very little change. Under these circumstances the winds remained southerly in the south, while they shifted to S.E. in Scotland. A great deal of rain fell except in the south, and lunar halos were reported from several stations. On the 2nd temperature rose to above 70° over France and central England.

Oct. 3. A change now took place. The western depression became more clearly defined, and during the day travelled rapidly to the east-north-eastward, producing the concavities shown in the more northern barograms of that date, and being succeeded by a very general increase of pressure. The centre of the depression appears to have passed completely over Holyhead, where a velocity of 35 miles an hour from S. at 3 p.m. on the 3rd was succeeded first by a lull, and then by an increase to 40 miles an hour from N.N.W. at 7 a.m. on the 4th. By 8 a.m. on the 4th the centre had reached Denmark, and by 2 p.m. a velocity of 40 miles an hour from N. was all but reached at Seaham as well as on the north-east coast generally. Temperature decreased considerably with the northerly wind, and the weather became finer.

The conditions just noticed did not continue long, for by the evening of the 4th the mercury was falling in the N.W. accompanied by a backing of the wind to S.S.W. in that region, while in the S. the barometer still rose. During the night, and following morning a depression travelled eastwards to Norwav, its centre passing a little to the northward of our northern coasts. Hence the dip, observed in all but the southern barograms on the 5th, and the large variations in the anemogram of our northern observatories on the 4th and 5th; and hence, too, rain fell in the north of the kingdom, while in the south the weather was fine. The principal wind felt with this depression was from the westward, and at Sandwick it rose to a maximum of

39 miles an hour towards midnight of the 5th, while at Alnwick Castle 34 miles had been registered at 2 p.m.

A new and more considerable disturbance now occurred. The barometer fell rapidly in most places, especially in the W. and N., and at 8 a.m. on the 6th (readings being then highest over central France), a new depression lay off the west coast of Ireland. Thus, while, owing to the previous disturbance, strong westerly winds or gales were felt on the eastern shores of the North Sea, strong to moderate S.S.W. breezes set in on our western coasts, subsequently increasing to a gale, and extending in less force to all parts of the Kingdom.

Observatories, Oct. 6–7 1873.	Velocity, 30–40 Miles per Hour.		Velocity, Exceeding 40 Miles per hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	4 a.m. (6th).	S. by W.	5 a.m. (6th).	S. by W.	47	10	3 p.m. (6th).	N.W. by W.	11	1 p.m. (6th).	S.W. by S.	50	—
Glasgow	8 p.m. (6th).	SW.	—	—	—	—	11 p.m. (6th).	S.W.byW.	3	8 p.m. (6th).	S.W.	35	—
Aberdeen	6 p.m. (6th).	S.S.E.	—	—	—	—	8 p.m. (6th).	S. by E.	2	6 p.m. (6th).	S.S.E.	36	—
Sandwick	1 a.m. (7th).	N.W.by N.	1 a.m. (7th.)	N.W.by N.	48	5	7 a.m. (7th).	N.W. by W.	6	2 a.m. (7th).	N.W.	54	—
Holyhead	9 a.m. (6th).	S.	Noon (6th).	S. by W.	44	8	10 p.m. (6th).	W.	13	3 p.m. (6th).	S. by W.	47	—

At Seaham a velocity of 30 miles an hour from S.S.W. was felt at 10 p.m. on the 6th, for one hour only. The minimum reading was recorded at Valencia about 2 p.m., and at Aberdeen (where the oscillation was much deeper) shortly before midnight. It will be observed from Plate LVI. that a considerable reduction of temperature occurred at Kew early on the morning of the 6th, the minimum of 41° being reached just before the barometer began to fall. No such change occurred at any of the other observatories.

By 8 a.m. on the 7th the centre of the disturbance had reached Norway, and though a brisk recovery had taken place over the northern stations in the night no rise was felt in the south. In fact, at Kew the barometer still fell, owing to the advance of a small local depression over the south of England, bringing with it much rain. Thunderstorms occurred in the north, and the weather was generally unsettled.

By the morning of the 8th readings were more uniform over our Islands, though highest to the south-westward of us and lowest over Denmark and Norway. The barometer was still rising on our coasts. Moderate north-westerly breezes were general, temperature was decreasing rapidly, (as will be seen by a comparison of Plates LVI. and LVII.), and the sky was cloudy, with showery weather, and thunderstorms in many places during the day.

Oct. 9. Since a little before midnight on the 8th the barometer had been falling very briskly on our western coasts, the change soon extending to Scotland, where it became more serious than in other parts of the country (*see* Plate LVII.). The wind at first backed to the southward, with an extremely rapid increase of temperature (amounting to 29° in the 24 hours at York), and freshened, with rain, but soon veered to W. again on all our coasts, and increased to a gale in most places.

By 8 a.m. on the 10th the centre of the disturbance lay to the northward of our islands and westward of Norway, and rather steep gradients for westerly winds prevailed over us (see Fig. 50, Plate LVII.). Strong westerly winds now blew along our western coasts, drawing into S.W. in the S.E. and E., while hard southwesterly gales were felt on the eastern shores of the North Sea, drawing into S.E. at Christiansund. Temperature continued high. During the day the depression passed eastwards, but was rapidly succeeded by another on about the same track, the effect of which is shown by the second dip in all the northern barograms on the 10th, as well as in the renewal of the gale from W.S.W. to W.N.W. at Sandwick, after the western gale of the first disturbance had subsided.

Observatories. Oct. 9-11 1873.	Velocity 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	8 a.m. (10th).	W.S.W.	11 a.m. (10th).	S.W.byW.	50	9	8 p.m. (10th).	W.	12	5 p.m. (10th).	S.W.	56	Wind had been fresh from the westward since preceding morning.
Glasgow	Midnt. (9th).	S.W.	—	—	—	—	Noon (11th.)	S.W. by S.	27	4 a.m. (11th).	S.W. by S.	41	For one hour only.
Aberdeen	4 p.m. (9th).	S.S.E.	—	—	—	—	7 p.m. (9th).	S. by E.	3	5 p.m. (9th).	S.S.E.	38	Occasional lulls.
Sandwick	2 p.m. (9th).	S.S.E.	5 p.m. (9th).	SS.E.	45	4	10 p.m. (9th).	S. by W.	8	5 p.m. (9th).	S.S.E.	48	—
	4 a.m. (10th).	W.	5 a.m. (10th).	W.	44	4	2 p.m. (10th).	S.W.	10	5 a.m. (10th).	W.	47	
	Midnt. (10th).	S.W.	4 a.m. (11th).	W.S.W.	44	8	1 p.m. (11th).	W. by N.	13	11 a.m. (11th).	W.	49	
Falmouth	11 p.m. (10th).	S.W.	—	—	—	—	8 p.m. (11th).	W.S.W.	15	Midnt. (10th).	S.W.	34	Occasional lulls.
Holyhead	8 a.m. (9th).	S. byW.	10 a.m. (9th).	S.	45	4	2 a.m. (11th).	W.S.W.	39	Noon & 1 p.m. (9th).	S. by E.	48	Lull for 3 hours, 10 a.m.—1 p.m. 10th.
			5 p.m. (10th).	S.S.W.	45	7				8 and 9 p.m. (10th).	S.S.W.		
Moorside	11 a.m. (10th).	W. by N.	—	—	—	—	2 p.m. (10th).	W. by S.	3	1 p.m. (10th).	W. by S.	34	—
	9 p.m. (10th).	S.W.byW.	—	—	—	—	2 a.m. (11th).	S.W.byW.	5	Midnt. (10th).	W.S.W.	37	
Seaham	6 p.m. (10th).	S.S.W.	—	—	—	—	Midnt. (10th).	S.W.	6	9 p.m. (10th).	S.S.W.	38	—
Alnwick Castle	2 a.m. (10th).	S.W.	Noon (10th).	W. by S.	49	11	4 p.m. (11th).	S.W	36	7 p.m. (10th).	W.S.W.	58	Lull for 2 hours, 8 and 9 a.m., 10th.
			5 a.m. (11th)	W. by S.	45	8							
Kew	Noon (11th).	S.W. by S.	—	—	—	—	4 p.m. (11th)	S.W. by S.	4	2 p.m. (11th).	S.W. by S.	31	—

Rain had fallen except in the south-east of England, and though the sky was clear temporarily in several places, the weather generally remained rather showery and squally.

At 8 a.m. on the 11th the conditions of pressure were those shown in Fig. 51, the wind being then rather more southerly than at the same hour on the 10th. After this time it subsided quickly, and a recovery of pressure took place which was very slight in the south, but rapid at the extreme northern stations. Temperature then fell somewhat, and the weather cleared up except in the south, where a small shallow depression, which passed eastwards on the 12th, produced locally strong winds and a heavy downpour of rain.

Oct. 13. A slight but general decrease of pressure had occurred over the British Isles, while in Norway some recovery from the previous disturbance was noted. Several small depressions were observed at 8 a.m., keeping the weather in a showery unsettled state, especially at the southern stations, by bringing about a little northerly wind, and reducing still further the temperature over our islands generally. By 8 a.m. on the 14th these had disappeared; the barometer was rising at all stations, and the weather though cool improved materially.

From this time to the 17th very little change of any note occurred. The barometer rose steadily except in the extreme north. An anticyclone prevailed over France on the 15th and extended to England during the day, so that while westerly breezes prevailed at our more northern stations (occasionally attaining the force of a strong breeze in the west, and a moderate gale at Sandwick) easterly winds were felt at the French ports with calms in the south of England and the Channel. Aurora (which was reported from one or more of our western and northern stations every night since the 9th) was very bright in Scotland on the 16th; and that the weather was generally fine may be readily inferred by the regularity of the diurnal range· of temperature shown by nearly all the thermograms on Pl. LVIII.

On the 17th, however, this regularity was suddenly arrested in the west and north. The barometer began to fall slowly at all our stations, and by 8 a.m. on the 18th the following conditions were established. A band of relatively high pressure (exceeding 30 ins.) extended from North Germany over the south of England and north of France to the Bay of Biscay, the very highest readings being found over the last-named region. To the northward of this band readings decreased to about 29·4 ins. off the west coast of Norway, while to the southward they decreased to 29·75 ins. at Toulon. Thus while north-easterly to easterly winds were felt in Spain and the southern parts of France, blowing a strong gale at Toulon, light west to south-west winds were reported in Ireland and England, while in the north a cyclonic circulation prevailed round the low pressure in that neighbourhood, giving us rather strong west to north-north-west winds at our most northern and north-eastern stations and south-westerly to south-easterly breezes in Norway. The oscillation observed in the northern barograms of that date is owing to the depression just mentioned.

The high pressure in the south-west now became more marked, and by 8 a.m. on the 19th extended over the whole of Ireland, England, and the north and west of France. The winds fell light, temperature decreased, especially over the northern parts of central England. During the day the appearance of a very small local depression over the English Channel brought about cold rains in the South; but a more serious disturbance was advancing over our northern regions from the westward, as will be seen by the rapid fall and great unsteadiness recorded by the barograms after noon, especially in the north-west and north. The progress of this new depression was rapid, its dimensions were very considerable, and its sides steep.

Oct. 20. At 8 a.m. the centre of the storm lay between the Shetland Isles and Norway. The gradient from Valencia to Greencastle was 0·08 in., that from Greencastle to Sumburgh Head 0·11 in. per 50 miles for north-westerly winds, while from the Scaw to Skudesnaes there was one of 0·11 in. for southerly and south-westerly winds (see Fig. 52, Plate LIX.). Strong south-west to westerly winds had been experienced in the north-west and west during the night, amounting to a gale in some places; and, as the centre passed eastward the westerly wind rose to a hard gale over the northern parts of the kingdom, attaining a velocity of 71 miles per hour in the Orkneys at 3 p.m. on the 20th, while strong winds from the same quarter were experienced over the remainder of the United Kingdom.

Observatories. Oct. 19–20 1873.	VELOCITY, 30–40 Miles per Hour.		VELOCITY Exceeding 40 Miles per Hour.				VELOCITY Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	MAXIMUM VELOCITY.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	8 p.m. (19th).	W.S.W.	—	—	—	—	1 a.m. (20th).	N.W.byN.	5	11 p.m. (19th).	W.S.W.	43	For one hour only,
Glasgow	11 p.m. (19th).	S. by W.	—	—	—	—	4 a.m. (20th).	W.N.W.	5	2 a.m. (20th).	W. by S.	39	Ardrossan experienced a maximum of force 10 (Beaufort scale) from W.N.W.
Aberdeen	5 a.m. (20th).	W.N.W.	2 p.m. (20th).	W. by N.	46	5	1 a.m. (21st).	W.N.W.	20	3 p.m. (20th).	W.N.W.	47	—
Sandwick	10 p.m. (19th).	S.	4 a.m. (20th).	N.W.byW	56	24	6 a.m. (21st).	N.W.byW.	32	3 p.m. (20th).	N.W.	71	—
Falmouth	11 a.m. (20th).	N.W.	—	—	—	—	3 p.m. (20th).	N.W.byW.	4	1&2p.m. (20th).	N.W.	33	—
Holyhead	10 p.m. (19th).	S.W. by S.	1 a.m. (20th). 1 p.m. (20th).	S.S.W. W.N.W.	43 47	9 7	10 p.m. (20th).	W.N.W.	24	2 p.m. (20th).	N.W.byW.	51	—
Moorside	5 a.m. (20th).	W.N.W.	—	—	—	—	7 a.m. (20th).	N.W.byW.	2	5 a.m. (20th).	W.N.W.	32	—
Alnwick Castle	3 a.m. (20th).	S.W. by S.	—	—	—	—	10 a.m. (20th).	W.N.W.	7	5 a.m. (20th).	W.	37	—

Captain Greenwood, of the ship "Gareloch," was off the north-west coast of Ireland during the night of the 19th and experienced an extremely heavy gale from W.S.W.

to W.N.W., with "terrific hail squalls." As the day advanced the wind drew towards N.W. generally, and a stiff gale from that quarter was felt over the Irish Sea, after which the wind subsided on our coast and gradually drew back to W. again. Temperature fell very generally, and the barometer rose fast; but very little rain accompanied the gale, though heavy hail squalls were experienced occasionally in the N.W.

By 8 a.m. on the 21st the centre of the storm was over Norway (Fig. 53), and on all the eastern shores of the North Sea severe westerly gales were prevalent. In our islands the wind was moderate to fresh from the same quarter, the weather very cloudy with showers in the N.W. and N.; but though the barometer had risen quickly until midnight of the 20th it was now falling again generally, especially in the W.

Oct. 22. The centre of a new storm, whose advent was heralded by the fall of our western barometers on the 21st, now lay over our most northern coasts, but the steepest gradients in this instance lay over our southern stations (Fig. 54, Plate LIX.). Light westerly breezes prevailed in most parts of Scotland, but became strong in some places during the day; fresh to strong winds were felt in the northern parts of Ireland and England, and westerly gales in the south of England and north of France, drawing into S.W. at the south-eastern stations, and accompanied by southerly to south-easterly breezes in Norway.

Observatories. Oct. 21-22, 1873.	VELOCITY 30-40 Miles per Hour.		VELOCITY Exceeding 40 Miles per Hour.				VELOCITY Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	MAXIMUM VELOCITY.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	9 p.m. (21st).	W.	—	—	—	—	9 p.m. (22nd).	W. by N.	20	2 a.m. (22nd).	W. by S.	42	For 1 hour only. Lull for 4 hours, 4 to 8 a.m., 22nd.
Glasgow	11 a.m. (22nd).	S.W.	—	—	—	—	1 p.m. (22nd).	W.S.W.	2	11 a.m. (22nd).	S.W.	32	—
Sandwick	7 a.m. (22nd).	W. by S.	—	—	—	—	4 p.m. (22nd).	N.W.	9	1 p.m. (22nd.)	W.N.W.	49	For 1 hour only.
Falmouth	Noon (21st).	W.S.W.	—	—	—	—	6 p.m. (22nd).	W. by S.	24	11 a.m. (22nd).	W.	42	For 1 hour only. Occasional lulls.
Holyhead	Noon (21st).	S.W.	2 a.m. (22nd).	S.W. by S.	46	2	4 a.m. (23rd).	S.W. by W.	33	9 p.m. (22nd).	S.W. by W.	47	For 1 hour only. Lull from 6 p.m. 21st, to 1 a.m., 22nd, wind backing to S.W. by S.
Alnwick Castle	9 a.m. (22nd).	W.	—	—	—	—	8 p.m. (22nd).	W.S.W.	11	Noon (22nd).	W.S.W.	44	For 1 hour only.

At Holyhead the velocity did not fall below 30 miles an hour between this gale and its predecessor, though the lull between the two and the backing of the wind are clearly marked.

At Yarmouth 30 miles an hour was attained twice during the day—at 9 a.m. from S.W. by W., and at 2 p.m. from W.

The increase of temperature had extended over France, the North Sea, and England, where it had been rapid. Showery squally weather was general, with sleet and hail in the N.W. and W. Thunder and lightning occurred in several parts of the country, and aurora was seen at the Scotch station, and in London during the evening.

Little or no recovery of pressure took place, except at the north-western stations, as this depression passed off, but after a slight interval some fresh local disturbance passed over our more central and southern stations, causing a renewed fall of the barometer over the country, and forcing the steep gradients further south, so that at 8 a.m. on the 23d the conditions prevailing were those shown in Fig. 55, Plate LX. Under these circumstances the winds were light to moderate from W.S.W. over the greater part of the United Kingdom, but in France and on our S.E. coast. W.S.W. or westerly gales were still felt, which became severe at Rochefort as the day wore on. Temperature had fallen generally, and showers of rain and hail were very prevalent in the W. and N.W., snow at Kirkby Lonsdale, and thunderstorms over central England. After midday, however, a very general and brisk rise of the barometer set in and continued with but little interruption until midnight of the 27th (see Plate LX.). The undulations observed in the various barograms appear to have been caused by numerous shallow depressions which passed over us, chiefly over the more southern parts of the Kingdom. These disturbances kept the weather in an unsettled state. The changes in the direction of the wind were extraordinarily numerous, but as a rule the force was slight. At Stonyhurst it veered twice round the compass in the five days; and on the 24th the wind blew very strongly from N.W. at our extreme northern stations. Thunderstorms were very prevalent in various parts of the Kingdom—most in the S.

The variations in temperature were not very marked until the close of the period, though diurnal range is clearly shown at all the observatories. By 8 a.m. on the 27th, however, the thermometer fell fast in the north and east of England, and an anticyclone began to advance over Ireland from the westward.

At 8 a.m. on the 28th the centre of the anticyclone lay over England, and as it passed eastward a downward motion of the mercury commenced, which continued as persistently as the previous rise had done until late on the 31st—see Plate LXI. Thus, the weather, which was at first cold, dry, and foggy, soon became warmer (except in the S.E.) and fresh S. to S.W. winds set in over our western and northern coasts, bringing with them rain, and eventually spreading over the whole country.

Oct. 31. At 8 a.m. pressure varied from about 30·0 ins. in the north of Spain to 29·8 in the north of France, and 29·2 off the northern coasts of Scotland (Fig. 56, Plate LIX.). Southerly to westerly winds were general in our Islands, blowing a moderate gale at St. Ann's Head, while fresh S.E. winds were felt in Norway, and very cloudy, damp weather was reported elsewhere. The barometer was still falling briskly, especially in the north, and at 6 p.m. (Fig. 57) there appears to have been a large but not deep depression lying to the northward of the Scotch coasts.

By 8 a.m. on November 1st an extraordinary change had occurred, the suddenness of which will be best understood by referring to the barograms and to Fig. 58 on Plate LXI. An exceedingly deep and well defined depression appeared over the Moray Firth, causing a total fall of an inch in the barometer since the previous morning, and of *three-quarters of an inch between midnight and 8 a.m.* The gradient from Green Castle to Nairn was 0·175 in., and from Liverpool to Leith 0·150 in. per 50 miles. Westerly to north-westerly gales were blowing on all exposed parts of our western coasts, and subsequently extended to almost all parts of the Kingdom; though, as will be seen by the following table, their force was not very great at the more northern ports, nor did the gales last very long.

Observatories, Oct. 31–Nov, 1, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	6 p.m. (31st).	S.W.byW.	8 p.m. (31st).	S.W.byW.	46	2	10 a.m. (1st).	W. by S.	16	8 p.m. (31st).	S.W.byW.	49	—
Glasgow	8 a.m. (1st).	W.S.W.	—	—	—	—	10 a.m. (1st).	W.S.W.	2	8 a.m. (1st).	W.S.W.	36	—
Aberdeen	4 a.m. (1st).	S.E. by S.	—	—	—	—	6 a.m. (1st).	S.S.E.	2	5 a.m. (1st).	S.E.	37	—
	Noon (1st.)	S.W.byW.	—	—	—	—	4 p.m. (1st).	S.W.	4	1 p.m. (1st).	S.W.	41	For one hour only.
Sandwick	9 a.m. (1st).	N.E.	—	—	—	—	Noon (1st)	N.E. by N.	3	10 a.m. (1st).	N.E.	44	For one hour only.
	3 p.m. (1st).	N.W.	4 p.m. (1st).	N.W.	54	4	3 a.m. (2nd).	S.W.byW.	12	5 p.m. (1st).	W.N.W.	58	—
Falmouth	Midnt. (31st).	S.W.	—	—	—	—	5 a.m. (1st.)	W.	5	1 a.m. (1st).	S.W.byW.	39	Freshened again to 33 miles from W. at 11 a.m., 1st.
Holyhead	10 p.m. (31st).	S. by W.	Midnt. (31st).	S.S.W.	45	6	5 p.m. (1st).	S.W.	19	3 a.m. (1st).	S.W.	48	—
Stonyhurst	1 a.m. (1st).	S.S.E.	—	—	—	—	3 a.m. (1st).	S.W. by S.	2	2 a.m. (1st).	S.	34	—
Moorside	2 a.m. (1st).	S.W. by S.	—	—	—	—	4 a.m. (1st).	W. by S.	2	2 a.m. (1st).	S.W.by S.	34	—
Seaham	7 a.m. (1st).	S.S.W.	—	—	—	—	11 a.m. (1st).	S.W.	4	7 a.m. (1st).	S.S.W.	37	—
Alnwick Castle	7 a.m. (1st.)	S.W.	7 a.m. (1st).	S.W.	53	8	7 p.m. (1st).	S.W.	12	8 a.m. (1st).	S.W.	63	—

Until the self-registering records were consulted, it seemed as though the depression must have been formed almost over the position in which it was found at 8 a.m., but it will be seen by Plate LXI. that not only did the Armagh barometer begin to fall rapidly several hours prior to that at Aberdeen, but that when it did fall the wind backed to S., and increased from that quarter, while at Glasgow it backed even to almost E. As the centre passed eastwards the wind at both places veered quickly to W., and attained its greatest force from that quarter. These facts show that the depression had advanced very rapidly to us from the south-westward, but it became more serious as it advanced, and the 6 p.m. reports prove that it continued its course north-eastward or north-north-eastward with equal rapidity.

The brief duration and comparative insignificance in force of the westerly gales experienced with so deep and sudden a disturbance, as well as the almost entire absence of north-westerly gales in its rear, are accounted for by the entire absence of recovery, or rather by a continuance of the decrease in pressure at our south-western observatories, even as the centre travelled away. It thus happened that whatever recovery occurred in the N. had the effect of reducing the gradients for westerly winds, and the extent to which this occurred will be evident when we say that at 6 p.m. the gradient from Valencia to Greencastle had become as little as 0·040 in., and that from Greencastle to Nairn 0·045 in. per 50 miles.

Nov. 2. The disturbance of yesterday had passed off, leaving readings still very low in the north. A new local disturbance appeared at the mouth of St. George's Channel, causing a return of southerly breezes over Great Britain, with showery weather at all but the northern stations. Temperature fell generally. The movements of this depression were very irregular, and its form changed very much during the day. At Valencia the oscillations of the wind vane were very extraordinary. See Plate LXII.

For several days a series of small shallow disturbances passed over us, causing the wind (which was chiefly southerly) to vary a good deal in direction, though its force was never very great, while the weather remained in an unsettled state. In the meantime pressure increased in Norway. On the morning of the 5th a well-defined depression with small central area appeared at the mouth of the Channel (Fig. 59, Plate LXII.) and, moving eastward, reached the neighbourhood of London by 8 a.m. on the 6th, Fig. 60. Here it seems to have halted for a time, and finally moved northward, reaching Nottingham by 8 a.m. on the 7th (Fig. 61, Plate LXIII.) where it was dispersed. The gradients about this disturbance were never very steep, though its influence on the wind was well marked, as the cyclonic circulation round it was complete. Moreover at Valencia the wind became strong from E.N.E. at 6 p.m. on the 4th, and reached a maximum of 43 miles from N.E. by 11 p.m., while Falmouth recorded 45 miles from S.E. by E. at 4 and 5 p.m. of the same day, and Yarmouth had strong breezes from S.S.E. on the evening of the 5th. As the centre moved northwards the northern stations were visited by strong N.E. breezes or gales, as will be seen by the following Table.

Observatories, Nov. 6–7, 1873.	VELOCITY, 30–40 Miles per Hour.		VELOCITY, Exceeding 40 Miles per Hour.				VELOCITY Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	MAXIMUM VELOCITY.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Aberdeen	6 a.m. (7th).	N.N.E.	—	—	—	—	2 p.m. (7th).	N.N.E.	8	7 a.m. (7th).	N.E. by N.	35	—
Holyhead	7 p.m. (6th).	N. by E.	3 a.m. (7th). 8 p.m. (7th).	N. by W. N. by E.	45 43	13 10	4 p.m. (8th).	N.E.	45	8 a.m. (7th).	N.N.W.	50	—
Seaham	2 a.m. (7th).	N.E.	—	—	—	—	4 a.m. (7th).	N.E.	2	3 a.m. (7th).	N.E.	32	—
	6 p.m. (7th)	N.E.	—	—	—	—	Midnt. (7th).	N.E. by E.	6	8 p.m. (7th).	N.E.	34	
Yarmouth	8 a.m. (6th).	S.S.E.		—	—	—	5 p.m. (6th).	S.	9	1 p.m. (6th).	S.S.E.	40	—

At Glasgow and Sandwick the velocity exceeded 30 miles several times during the 6th or 7th. The changes of temperature, also, were remarkable; for not only did the weather (which had previously been very cold) become much warmer as the southerly winds on the eastern side of the centre set in over England, but even in Scotland the setting in of the north-easterly winds on the 5th and 6th was accompanied by a most rapid rise of the thermometer, so that at 8 a.m. on the 6th in all the north-eastern and eastern parts of the country temperature had risen from 16 to 17 degrees since the previous morning. The Aberdeen thermogram and anemogram for the 5th are very interesting. Thus at 9 a.m. the wind was light from W. by N. Here it remained, with little variation, till 8 p.m., but temperature rose fast during the whole time. It then backed instantaneously to S.E., accompanied by an equally sudden jump of the thermometer, and finally, as it backed steadily to N., the thermometer remained high, although it was night time. The changes at Falmouth are in marked contrast to these; for there the wind was strong from S.E. at noon on the 4th, veered to S.S.W. and lulled at about 3 40 p.m., then backed slowly to S. and S.S.E. by 8 a.m. on the 5th, and between 3 p.m. and midnight backed round steadily through E. to. N. and W., and yet there is scarcely any change of temperature reported, with the exception of a slight *fall* during the change from N. to W. The weather was very dull and wet over the whole country on these days.

By the morning of the 8th all signs of the above-named disturbance had disappeared; the barometer had risen over the United Kingdom generally, and was highest in the N. and N.W., while a new fall had appeared in the south-west of France. Moderate north-easterly breezes prevailed over the British Isles and North Sea, temperature fell a little in the east of England and west of France, and the sky began to clear somewhat in the N.

At 8 a.m. on the 9th the new fall of the barometer had extended to all our southern stations, while at the northern stations the mercury still rose. The centre of a well marked depression now lay near Rochefort—see Fig. 62, Plate LXIII. The north-easterly wind increased very much over England and Ireland, reaching the force of a fresh gale in the Channel and at some of our anemometer stations, while strong westerly breezes set in over the S.W. of France.

Observatories, Nov. 9–11, 1873.	Velocity, 30–40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Falmouth	7 a.m. (9th).	N.E.	9 a.m. (9th).	N.E. by E.	46	9	8 p.m. (9th).	N.E.	13	11 a.m. (9th).	N.E. by E.	50	—
Holyhead	11 p.m. (8th).	N.E. by E.	9 a.m. (9th).	N.E. by E.	46	25	Midnt. (10th).	E.	49	6 a.m. (10th).	E.	57	—
Kew -	5 a.m. (9th).	N.E. by E.	—	—	—	—	6 p.m. (9th).	N.E. by E.	13	9 a.m. (9th).	N.E. by E.	38	—
Yarmouth	8 p.m. (8th).	E.	1 a.m. (9th).	E.	52	25	?	?	?	7 p.m. (9th).	E. by N.	60	Cups blew off at 11 a.m. 11th, with velocity still above 30 miles.

On our south-east coasts the gale was very severe, but the accident to the Yarmouth anemometer prevents our saying at what time the velocity fell below 30 miles an hour at that station. Rain fell in large quantities in the south, and a less amount in the north, with hail at Aberdeen. Lightning had been seen at Scilly.

The depression now moved to the north-north-westward, and at 8 a.m. on the 10th reached the mouth of the English Channel, the gale having blown with great force in the east of Ireland since the previous morning; the disturbance was, however, becoming less marked. It is not a little remarkable that so severe a gale should have been experienced while the changes of pressure were so gradual as those shown by the barograms in Plate LXIII.

Nov. 11. The centre of the depression had disappeared, having *apparently* been forced south-westward away from our coasts, or become almost entirely dispersed. The highest readings still lay over Norway and Denmark, the mercury began to fall both in Scotland and the west and south of France. Moderate easterly breezes prevailed, except on our northern and west coasts, where they drew into S.E. and S., and the sky, though still cloudy, was less so than of late. In the course of the next 24 hours the fall of the mercury, though slow, became general.

On the morning of the 13th readings were highest (exceeding 30·1 ins.) at the most northern stations, and lowest in the west of France. A shallow depression showed itself at the mouth of the St. George's Channel, while there appeared to be a lower pressure prevailing over the Bay of Biscay. Easterly breezes were general over the United Kingdom and France, drawing into N.E. and N.N.E. in the south of Ireland, although at Scilly a moderate S.W. wind was felt. Temperature had changed very irregularly, rising rapidly in some places and falling a little in others—the rise being most marked in the west of France—while cloudy weather prevailed generally, with large quantities of dense fog in the S.E. Before next morning the local depression had disappeared, after causing a moderate E.N.E. gale at Falmouth and Holyhead.

By 8 a.m. on the 14th readings varied from 30·25 ins. in the north of Scotland to 29·6 ins. in the south of France and north of Spain. Easterly to north-easterly winds prevailed generally, moderate to fresh in force; temperature had risen quickly in most places, but the sky remained cloudy (except on the eastern shores of the North Sea), and a little rain fell in the S.W. The barometer continued to rise steadily over the United Kingdom until the 16th, the highest readings being found over our north and north-west stations during the interval. Temperature changed very little till the night of the 15th, when a sudden and considerable fall occurred in the N.W. (see Plate LXIV.). Easterly to north-easterly winds prevailed over the greater part of this country and France, with dry but foggy weather; but some oscillations in pressure which occurred over Scandinavia produced westerly breezes in that region, and winds from the same quarter were felt temporarily in the north of Scotland.

The anemogram for Glasgow on the 15th (Plate LXIV.) gives a curious example of the revolutions in the vane which occur at times during almost calm weather, the wind having apparently veered twice round the compass between 6 a.m. and 9. p.m.

After the 16th the barometer fell very slowly generally, and by the 20th the area of highest pressure had moved south-eastward, its form being considerably modified during its progress. Its centre then lay over Nottingham. Light southerly to westerly breezes gradually set in, commencing in the N.W., accompanied by a rise of the thermometer in that region. The weather was foggy but dry.

At midnight of the 20th, however, a sudden change set in. The mercury began to fall with great rapidity in the N.W., the change extending quickly all over the country, and the wind increased from W. and S.W. with a rapid rise of temperature.

At 8 a.m. on the 21st the highest readings lay over the Bay of Biscay and a well-marked depression was advancing from the westward towards the Norwegian coasts (*see* Fig. 63, Plate LXV.). Fresh to strong westerly breezes were felt over nearly the whole country, accompanied by an increase of cloud, and some rain, but it was not until *after* a certain interruption of the baric fall, shown by the various barograms during the later hours of the 21st, that the wind veered to N.W. and became of serious strength. Then the barometer fell quickly for a short time and north-westerly gales were felt in most places, as will be seen by the following Table.

Observatories, Nov. 21-22, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	Noon (21st).	W. by S.	—	—	—	—	3 p.m. (21st).	W.	3	2 p.m. (21st).	W. by S.	33	—
Glasgow	11 a.m. (21st).	S.W. by S.	—	—	—	—	3 p.m. (21st),	S.W.	4	Noon (21st).	S.W. by S.	39	—
	11 p.m. (21st).	S.W. by W.	—	—	—	—	3 p.m. (22nd).	W.N.W.	16	5 a.m. (22nd).	W.N.W.	41	For 1 hour only.
Aberdeen	3 a.m. (22nd).	W.	5 a.m. (22nd).	W.	43	3	1 p.m. (22nd).	N.W. by W.	10	6 a.m. (22nd).	W. by N.	45	—
Sandwick	2 p.m. (21st).	W.S.W.	—	—	—	—	9 p.m. (21st).	W.	7	5 p.m. (21st).	W.N.W.	39	—
	2 a.m. (22nd).	W. by N.	6 a.m. (22nd).	N.W. by W.	44	3	3 p.m. (22nd).	N.W.	13	6 a.m. (22nd).	N.W. by W.	47	—
Falmouth	7 p.m. (21st).	W.	5 a.m. (22nd).	W.N.W.	43	13	7 p.m. (22nd).	W.N.W.	24	6 a.m. (22nd).	W.N.W.	47	—
Holyhead	Noon (21st).	S.W. by W.	—	—	—	—	5 p.m. (21st).	S.W.	5	2&3 p.m. (21st).	S.W.	40	—
	10 p.m. (21st).	W.S.W.	4 a.m. (22nd).	W.	44	7	4 p.m. (22nd).	W.N.W.	18	5 a.m. (22nd).	W.N.W.	48	—
Stonyhurst	Midnt. (21st).	S.W.	—	—	—	—	3 p.m. (22nd).	W.	15	5&7 a.m. (22nd).	W.	37	—
Moorside	3 a.m. (22nd).	W. by N.	—	—	—	—	11 a.m. (22nd).	N.W. by W.	8	6 a.m. (22nd).	W.N.W.	46	For 1 hour only.
Seaham	3 a.m. (22nd).	W.	—	—	—	—	Noon (22nd).	N.W. by W.	9	5 a.m. (22nd).	W. by N.	46	For 1 hour only.
Alnwick Castle	5 a.m. (21st).	W.S.W.	3 p.m. (21st).	S.W. by W.	47	3	2 p.m. (22nd).	N.W.	29	5 p.m. (21st).	W.	52	Lull for 4 hours, 7 to 11 p.m., 21st.
			3 a.m. (22nd).	W.N.W.	46	5							
Yarmouth	5 a.m. (22nd.)	W. by S.	—	—	—	—	4 p.m. (22nd).	N.W.	11	8 a.m.	N.W. by W.	40	—

The general distribution of pressure and the gales reported as prevailing at 8 a.m. on the 22d are shown in Fig. 64, Plate LXVI., at which time, however, the barometer was rising at all the observatories, excepting Kew. The rise of temperature had extended to the English stations during the day, and had been very rapid; hard squalls and rain were general, the sea ran high and the gales subsequently extended to the eastern shores of the North Sea. During the day the disturbance passed off and the barometer rose; but a new depression immediately followed, apparently a little further northwards than its predecessor, causing the sudden dips noticed in the northern barograms, and the sudden rise in the thermograms during the night of the 22d and 23d, so that the gales were soon renewed over the more northern parts of the kingdom.

Nov. 23. At 8 o'clock the centre of the new storm lay near the coast of Norway (Fig. 65, Plate LXVI.), but at that time the mercury was rising over the whole of this country, the winds moderating (except in the N.) temperature falling, and the weather improving, while the gale was passing on towards the Baltic.

The next Table shows the principal features of the anemometrical records for this second gale, which was felt most in the N., and was on the whole of short duration.

Observatories, Nov. 23-25, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Armagh -	1 a.m. (23rd).	W. by S.	—	—	—	—	3 a.m. (23rd).	W. by S.	2	2 a.m. (23rd).	W.	34	—
Glasgow	11 p.m. (22nd).	S.W. by W.	—	—	—	—	4 p.m. (23rd).	W. by S.	17	2 a.m. (23rd).	W.	42	For one hour only.
Aberdeen	11 a.m. (23rd).	W. by S.	—	—	—	—	6 p.m. (23rd).	W.	7	3 p.m. (23rd).	W. by N.	38	—
Sandwick	2 a.m. (23rd).	W.	3 a.m. (23rd). 6 p.m. (24th).	W. W. by S.	48 43	23 7	Noon (25th).	W.N.W.	52	11 a.m. (23rd).	W.	61	Occasional lulls on the morning of the 24th.
Falmouth	Midngt. (22nd).	W. by N.	—	—	—	—	1 p.m. (23rd).	W.N.W.	13	2 a.m. (23rd).	W. by N.	40	
Holyhead	10 p.m. (22nd).	W.S.W.	—	—	—	—	6 p.m. (23rd).	W.	20	6 a.m. (23rd).	W.N.W.	42	For one hour only.
Stonyhurst	1 a.m. (23rd).	S.W. by W.	—	—	—	—	4 p.m. (23rd).	W. by S.	15	9 a.m. & 1 p.m. (23rd).	W. by S. & W.	39	—
Moorside	3 a.m. (23rd).	W.N.W.	3 a.m. (23rd).	W.N.W.	47	12	7 p.m. (23rd).	W.N.W.	16	8 a.m. (23rd).	N.W. by W.	55	—
Seaham -	3 a.m. (23rd).	W. by N.	—	—	—	—	4 p.m. (23rd).	W.N.W.	13	7 a.m. & Noon (23rd).	W.N.W. & W. by N.	35	—
Alnwick Castle	11 p.m. (22nd).	W.S.W.	4 a.m. (23rd).	W. by N.	44	3	7 p.m. (23rd).	W. by N.	20	4 a.m. (23rd).	W. by N.	45	—
Yarmouth	8 a.m. (23rd).	W.N.W.	—	—	—	—	2 p.m. (23rd).	W.N.W.	6	9 & 11 a.m. (23rd).	N.W. by W.	35	—

During the remainder of the 23rd the weather, though showery in the W. and N., improved generally, but a slight additional disturbance appears to have been felt in the extreme N. during the early hours of next morning. This caused a temporary reversal of the motion of the barometer, and an increase of westerly winds, but not to any serious extent, and the brisk recovery of pressure was subsequently renewed. By 8 a.m. on the 25th the highest pressures had been transferred to the central French stations. The wind backed to the southward generally during the day, while a new fall of the mercury in the W., accompanied by rainy weather and a rapid increase of temperature, pointed to a fresh series of disturbances, which now passed over or near us from the south-westward.

Nov, 26. At 8 a.m. the mercury was still falling very quickly at all stations. The change since the previous morning amounted to upwards of 0·6 in. in the west of Ireland, and 0·1 in. over Central France, while at Toulon and at the Danish and Norwegian stations the mercury had risen. Southerly winds prevailed generally, blowing a moderate gale in the W. (Figure 67), and a light to moderate breeze in the E., wet unsettled weather being experienced everywhere. During the day the disturbance moved slowly to the north-eastward, and by 6 p.m. very strong W.S.W. winds blew at the southern stations, with moderate to fresh southerly winds in the N.

Observatories, Nov. 25–27, 1873.	Velocity, 30–40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	3 p.m. (25th).	S. by W.	2 a.m. (26th).	S. by E.	46	8	3 p.m. (26th).	S.W.by. S.	24	6 a.m. (26th).	S. by E.	50	—
	Midnt. (26th).	W.	—	—	—	—	11 a.m. (27th).	N.W.	11	6 a.m. (27th).	N.W.byW.	39	
Aberdeen	3 p.m. (27th).	W.N.W.	5 p.m. (27th).	N.W.byW.	48	6	Midnt. (27th).	W. by S.	9	8 p.m. (27th).	W.N.W.	53	—
Sandwick	Noon (27th).	W.N.W.	3 p.m. (27th).	N.W.byW.	47	11	8 a.m. (28th).	W.S.W.	20	6 p.m. (27th).	N.W.	54	—
Falmouth	9 a.m. (26th).	S. by W.	—	—	—	—	4 p.m. (27th).	W.N.W	31	11 a.m. (26th). 11 a.m. (27th).	S. W.N.W.	41	—
Holyhead	5 p.m. (25th).	S.S.E.	Noon (26th) 7 a.m. (27th).	S.S.E. W.	45 42	4 3	Midnt. (27th).	W.N.W.	55	2 p.m. (26th)	S.S.E.	47	—
Stonyhurst	3 p.m. (26th).	S. by E.	—	—	—	—	6 p.m. (26th).	S.	3	4 p.m. (26th).	S.S.E.	35	—
	3 p.m. (27th).	W.S.W.	—	—	—	—	10 p.m. (27th).	W.	7	4 p.m. (27th).	W.	39	
Moorside	3 p.m. (27th).	W.N.W.	—	—	—	—	10 p.m. (27th).	N.W.	7	8 p.m (27th).	N.W.	43	For one hour only.
Seaham	5 p.m. (27th).	W. by N.	—	—	—	—	9 p.m. (27th).	N.W.byW.	4	6 and 7 p.m. (27th).	W. by N.	33	—
Alnwick Castle	11 a.m. (27th).	W by N.	—	—	—	—	3 p.m. (27th).	W.N.W.	4	11 a.m. (27th).	W. by N.	34	—

About midnight a recovery of pressure commenced at Valencia, and soon extended northward and eastward.

On the morning of the 27th the centre of the depression lay over the north of Scotland (Fig. 68, Plate LXVII.), and fresh W.N.W. gales blew at all our northern stations. with westerly gales in the north-west of France. The barometer had fallen 0·8 in. over the south of Norway, but was now rising on our W. and N.W. coasts. Showers of hail fell in the S.W., lightning had been seen at Roche's Point and Scilly, but during the day the weather cleared generally, though the wind still blew hard as it veered to N.W., and temperature fell in Scotland. (See Fig. 69.) A very sudden but marked oscillation of the wind took place at Valencia about midnight, accompanied by a temporary cessation in the barometric rise, and an increase of temperature. A very similar, but less marked, shift of wind took place at Glasgow, accompanied by barometrical oscillations.

At 8 a.m. on the 28th the recovery of pressure had reached the eastern shores of the North Sea. Readings varied from 30·4 ins. at Corunna to 29·4 ins. at Sumburgh Head, and 29·1 ins. at Christiansund. The wind had fallen light, and backed to W. over the United Kingdom, and no gale was reported excepting at Christiansund. In the evening a new disturbance passed outside northern coasts, producing the concavity shown in the Glasgow and Aberdeen barograms for that evening (Plate LXVII.), but its effects on the winds in our islands were slight, except at Sandwick and Sumburgh Head, both of which stations felt a stiff westerly gale, while Glasgow had a moderate gale from W. by S.

After midnight, however, an entirely distinct fall set in at Valencia, which subsequently extended to all parts of the country, but was by far most serious in the N. The new fall appears to have been caused by a well defined depression whose centre passed over the extreme north of our islands, and, travelling rapidly to the east-south-eastward, reached Denmark by 8 a.m. on the 30th. The gradients around this depression were steep, and produced stiff gales on most of our coasts, as shown in the next Table. The recovery of pressure in its rear was very rapid (*see* Plate LXVII.) and the fall of temperature very decided, especially at Kew.

Observatories, Nov. 28–30, 1873.	Velocity, 30–40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	Midngt. (28th).	S.W.byW.	4 a.m. (29th). 11 a.m. (29th).	S.W. by S. W. by N.	45 41	4 2	7 a.m. (30th).	N.W.	31	7 a.m. (29th).	S.W.byW.	49	—
Armagh	Noon (29th).	S.W. by S.	—	—	—	—	3 p.m. (29th).	W. by S.	3	1 p.m. (29th).	S.W. by S.	36	—
Sandwick	7 p.m. (29th).	N.N.W.	—	—	—	—	11 p.m. (29th).	N. by W.	4	9 p.m. (29th).	N. by E.	38	—
Falmouth	9 a.m. (29th).	W. by S.	3 p.m. (29th).	W. by N.	43	8	3 p.m. (30th).	N.W.byW.	30	7&9p.m. (29th).	W.byN.& W.N.W.	45	—
Holyhead	5 a.m. (29th).	S.S.W.	8 a.m. (29th).	S.S.W.	46	17	2 p.m. (30th).	N.W.byW.	33	7 p.m. (29th).	W. by N.	45	—
Stonyhurst	4 p.m. (29th).	S.W. by S.	7 p.m. (29th).	W.	41	4	2 a.m. (30th).	W. by S.	10	7 p.m. (29th).	W.	44	—
Moorside	8 a.m. (29th).	W.S.W.	—	—	—	—	3 a.m. (30th).	N.W.byW.	11	7 p.m. (29th).	W.S.W.	44	For one hour only. Lull from 10 a.m. till 6 p.m., 29th.
Seaham -	11 a.m. (29th).	S.W.	—	—	—	—	2 p.m. (29th).	S.W.byW.	3	Noon (29th).	S.W.	37	—
Alnwick Castle	7 p.m. (28th).	W.	1 a.m. (29th). 10 a.m. (29th).	W.N.W. W.	43 46	3 6	4 a.m. (30th).	N.W.byW.	24	11 a.m. (29th).	W.S.W.	55	Lulls from 7 till 10 a.m. and from 5 till 11 p.m., 29th.
Yarmouth	6 p.m. (29th).	W. by S.	—	—	—	—	6 a.m. (30th).	W.N.W.	12	11 p.m. (29th).	W. by N.	41	For one hour only.

Scarcely had the storm passed off, however, than a new baric minimum passed from W. to. E., well to the northward of the United Kingdom, so that the wind returned speedily to the westward and south-westward with a rise of the thermometer. The track of the disturbance lay so far north that nothing beyond fresh to strong breezes were felt, except in the N. of our Islands; but Sandwick had a velocity of 48 miles from W. at 6 p.m. on the 1st, and Alnwick Castle, 55 miles at 8 a.m. 1st. It is also in the northern stations only that a distinct dip of the barometer is traceable.

For the next four days the weather over the British Isles and their neighbourhood was very quiet and dry. The highest readings lay over either the Bay of Biscay or France, and temperature was very uniform. On the night of the 4th and during the 5th some new disturbances travelled towards Norway from the westward, and, like that mentioned above, produced very little effect on the weather of the British Isles, except at the northern stations, where some rain fell generally, and the wind blew a moderate gale from the westward, notably at Sandwick and Alnwick Castle (Fig. 70).

Then came another long quiet period, as will be seen by referring to Plates LXIX. and LXX., lasting until December 13th, during which interval the high pressure lay still further N. than on the first four days of the month. On the 7th, however, the westerly wind freshened considerably in the N., and at Alnwick Castle a velocity of 54 miles (from W.S.W.) was recorded at 1 and 2 a.m. on the 8th. During this quiet time a smart frost set in over France, Belgium, and the S. and S.E. of our Islands with remarkable suddenness. The change first affected our south-eastern stations on the night of the 8th, and by referring to the Plates it will be seen how extremely suddenly the thermometer fell at Kew. Falmouth shows a less marked change, and on the following night even Valencia seems to have felt a considerable "chill." The northern observatories, however, seems to have escaped until the night of the 10th, and it is to be noticed that the region of greatest cold coincided with that of calm in the centre of a large anticyclone which lay over Belgium at 8 a.m. on the 8th (*see* Fig. 71, Plate LXIX.) This gradually moved north-westward, till at 8 a.m. on the 10th it lay completely over England.

After the 12th the anticyclone began to give way on its western side and, as southerly to south-westerly breezes became re-established in the W. and N., the thermometer rose again, but in the S.E. the weather remained rather cold till after the 14th.

Dec. 14. Barometrical pressure at 8 a.m. varied from more than 30·5 inches over the south of England and north of France to 29·9 ins. at Christiansund, and the mercury was falling very briskly in the west and north, accompanied by light S. to S.W. winds and dull weather. Towards night a well-marked depression appears to have passed from S.W. to N.E. over our area, its eastern side just skirting our western coasts. This depression produced little wind on our coasts, and at 8 a.m. on the 15th, when the centre lay to the north-westward of Scotland, a slight recovery was in progress at the Irish stations. The recovery continued till about noon, and was felt, later in the day, in Scotland also. In the evening, however, it was suddenly terminated by a most decided and unusually rapid fall of the mercury in the north, and during the night the centre of an extremely deep and serious depression moved from W. to E. towards Norway, its centre passing almost, if not quite, over the Shetland Isles, for at Christiansund the wind was easterly while it was westerly at all our own stations. Plate LXX. exhibits the extraordinary dip, caused in the Aberdeen barogram by this disturbance, and it is evident that an observatory in the Shetlands, had it existed, would have shown a much more serious and sudden change. With the falling barometer and south to south-westerly winds which were at first felt the thermometer rose in a marked manner, but as the centre passed eastwards temperature fell in Scotland, and it was with the west-south-westerly to westerly winds that the full violence of the gale was felt.

The distribution of pressure and the gales prevailing over Western Europe at 8 a.m. on the 16th are shown in Figure 72, at which time the centre was between the Shetland Isles and Norway. Fierce westerly gales raged over the north of the Kingdom, and fresh south-westerly gales (which quickly veered, and increased in violence) were blowing on the eastern shores of the North Sea. The following is the tabular statement of the gale as felt by our various anemometers.

Observatories, Dec. 14-16, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	7 p.m. (14th).	S.	10 p.m. (14th).	S.	45	4	3 a.m. (15th)	S.W.byW.	8	1 a.m. (15th).	S.S.W.	48	—
	2 p.m. (15th).	S.W.	—	—	—	—	5 a.m. (16th)	W. by S.	15	6 p.m. (15th).	S.W.byW.	43	For one hour only.
Armagh	6 p.m. (15th).	S.S.W.	—	—	—	—	6 a.m. (16th)	W. by S.	9	4 a.m. (16th).	W.S.W.	38	Lull for 3 hours, 9 p.m. to Midnight 15th.
Glasgow	9 p.m. (15th).	S.W. by S.	2 a.m. (16th).	W.S.W.	45	12	7 p.m. (16th)	W. by S.	22	8 a.m. (16th).	W.	51	—
Aberdeen	2 a.m. (16th).	S.W.	9 a.m. (16th).	W. by S.	49	6	11 p.m. (16th)	W. by N.	21	11 a.m. (16th).	W.N.W.	64	—
Sandwick	2 p.m. (15th).	W.S.W.	1 a.m. (16th).	W.S.W.	53	27	6 a.m. (17th)	W.N.W.	37	10 a.m. (16th).	N.W.byW.	78	Lull for 3 hours, 6 to 9 p.m., 15th. Velocity fell to 15 miles, but freshened again as wind backed from W.S.W. to S.
Falmouth	1 p.m. (16th).	W.	—	—	—	—	5 p.m. (16th)	W. by N.	4	2 p.m. (16th).	W. by N.	32	—
Holyhead	6 p.m. (14th).	S. by E.	2 a.m. (15th).	S.	43	5	9 a.m. (15th)	S.W. by S.	15	3 a.m. (15th).	S.	47	—
	6 p.m. (15th).	S.S.W.	—	—	—	—	10 a.m. (16th)	W.	16	4 a.m. (16th).	S.S.W.	41	For one hour only.
Stonyhurst	2 a.m. (16th).	S.W.byW.	8 a.m. (16th).	W.S.W.	46	6	7 p.m. (16th)	W. by S.	17	Noon (16th).	W. by S.	52	—
Moorside	4 a.m. (16th).	W. by S.	6 a.m. (16th).	W.	45	8	3 p.m. (16th)	W by N..	11	9 a.m. (16th).	W.	50	—
Seaham -	11 p.m. (15th).	S.S.W.	6 a.m. (16th).	W.S.W.	45	7	4 p.m. (16th)	W.N.W.	17	8 & 9 a.m. (16th).	W. by S. and W.	49	—
Alnwick Castle	3 p.m. (15th).	S.W.byW.	11 p.m. (15th).	S.W. by S.	53	16	7 p.m. (16th)	W.N.W.	24	4 a.m. (16th).	W.S.W.	66	Lull for four hours, 5 to 9 p.m. 15th.
Yarmouth	6 a.m. (16th).	S.W.	—	—	—	—	1 p.m. (16th)	W.N.W.	7	Noon (16th).	W.	33	—

From this it will be seen how excessive the force of the wind was in the north as compared with that in the south; at the most northern towns the force is described as that of "a hurricane," while Liverpool, York, and even Scarborough seem to have had no more than a fresh gale (force 8 by Beaufort scale), and even Holyhead had no velocity so high as 50 miles an hour. Very little rain fell with the gale, whose centre moved eastward with such rapidity, that by 8 a.m. on the 17th the rear of the disturbance was passing over the south of Norway (see Fig. 73, Pl. LXXI.); and light westerly breezes were felt over the whole of the British Isles. At Sumburgh Head the mercury rose more than an inch and a quarter in the 24 hours. If the advent of the gale was unusually sudden, equally so was its disappearance; and it is remarkable how quiet the weather continued even for some days after so serious a disturbance, except in the far north. The highest pressure became established over the Bay of Biscay on the 17th, and on the night of that day another but much less serious depression passed eastwards towards Norway from the Atlantic, producing the gales shown in the next table, and a marked concavity in the Aberdeen barogram.

Observatories. Dec. 17–20, 1873.	Velocity, 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	5 p.m. (17th).	S.W.byW.	—	—	—	—	1 a.m. (18th).	W. by S.	8	9 & 10 p.m. (17th).	W.S.W. and S.W.byW.	35	—
Glasgow	10 p.m. (17th).	S.W.	—	—	—	—	1 a.m. (18th).	W.S.W.	3	10 p.m. (17th).	S.W.	32	—
Sandwick	11 p.m. (17th).	S.W.	Midnt. (17th).	W. by S.	44	18	4 a.m. (19th.)	S.W.	29	4 a.m. (18th).	W.	50	—
Alnwick Castle	10 p.m. (17th).	W.S.W.	Midnt. (17th).	S.W.byW.	42	2	5 a.m. (18th).	W.	7	1 a.m. (18th).	S.W.byW.	43	—

Another calm period followed this occurrence, during the whole of which time the barometer remained high in the south and low in the far north; while light to moderate south-westerly and westerly breezes prevailed, with very mild weather. Some thunderstorms occurred in the north, but very little change of a marked character occurred till the night of the 21st, when, after a slight rise of the barometer, another rather deep depression travelled eastwards in much the same track as those previously experienced (Fig. 74.), producing strong south-westerly to westerly gales in the north, and strong westerly breezes over the rest of the country, as will be seen by the next Table.

Observatories, December 21-22, 1873.	Velocity, 30-40 Miles per Hour.		Velocity, Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	7 a.m. (21st).	W.S.W.	11 a.m. (21st).	S.W.byW.	46	10	10 p.m. (21st).	W. by N.	15	3 p.m. (21st).	S.W.	49	—
Armagh	10 a.m. (21st).	S.W. by S.	—	—	—	—	9 p.m. (21st).	W. by S.	11	7 p.m. (21st).	S.W. by S.	39	—
Glasgow	4 a.m. (21st).	W.S.W.	11 p.m. (21st).	S.W.byW.	41	2	5 a.m. (22nd).	W. by S.	21	11 p.m. and Midnt. (21st).	S.W.byW.	41	Lull for 4 hours, 1-5 p.m., 21st.
	2 p.m. (22nd).	W.S.W.	—	—	—	—	6 p.m. (22nd).	W.	4	2 p.m. (22nd).	W.S.W.	33	—
Aberdeen	7 p.m. (21st).	S.W. by S.	—	—	—	—	Midnt. (21st).	S.W.	5	7&8p.m. (21st).	S.W. by S.	40	—
Sandwick	6 p.m. (21st).	W.S.W.	11 p.m. (21st).	S.W.byW.	51	26	8 a.m. (23rd).	W.N.W.	38	10 a.m. (22nd).	W.	64	—
Holyhead	Noon (21st).	S.S.W.	8 p.m. (21st).	S.S.W.	43	5	3 a.m. (22nd).	W.S.W.	15	10 p.m. (21st).	S.S.W.	47	—
Stonyhurst	5 p.m. (21st).	S.W.	—	—	—	—	8 p.m. (21st).	S.W.	3	5 p.m. (21st).	S.W.	36	—
Moorside	8 p.m. (21st).	W. by S.	—	—	—	—	2 a.m. (22nd).	S.W.	6	Midnt. (21st).	W.S.W.	34	—
Seaham	7 p.m. (21st).	S.W.	—	—	—	—	2 a.m. (22nd).	S.W.byW.	7	7 p.m. (21st).	S.W.	38	—
Alnwick Castle	7 a.m. (21st).	W.byS.	2 p.m. (21st). 7 p.m. (21st). 4 a.m. (22nd).	S.W.byW. S.W.byW. W. by S.	46 60 42	2 6 4	10 p.m. (22nd).	W. by S.	35	8 p.m. (21st).	W.S.W.	68	Lull for 4 hours, noon to 4 p.m. 22nd.

This disturbance also was accompanied by comparatively little rain, but a great deal of snow fell in the north of our Islands, and the thermometer fell several degrees as the disturbance passed off. The recovery continued with some local irregularities (especially at Glasgow), till the close of the 22d; and at 8 a.m. on the 23d the depression was fast disappearing over Norway—see Fig. 75, Pl. LXXII. A new centre of disturbance was, however, approaching, and appears to have passed over the Scotch stations during the night of the 23d, where, as will be observed in Pl. LXXII., the changes of wind, temperature, and pressure are much more marked than in the south. Strong westerly breezes were experienced generally, and at Alnwick Castle the velocity of 50 miles was reached at 6 p.m. It is remarkable how sudden the recovery was in the north in the rear of the depression, and equally so was the suddenness of the thermometric fall, except at Aberdeen. By 8 a.m. on the 24th (Fig. 76) this new disturbance (which must have travelled with great rapidity) had reached the eastern shores of the North Sea.

As soon as the recovery of pressure from this depression was completed a very gradual fall of the mercury commenced, accompanied by a rise of temperature and a return of wind towards W. and S.W. This fall of the barometer continued until the 27th, when, with an increase of pressure, the wind veered north-westward and the thermometer fell a little. A large anticyclone then passed over the south of England and north of France.

About midday on the 28th the barometer ceased rising all over the country, and then ensued a brisk fall in the rear of the anticyclone above-mentioned, which continued uninterruptedly for 24 hours in the west, and still longer elsewhere, producing the conditions shown in Fig. 77, Pl. LXXIII. On the 29th a depression appears to have moved north-eastward or north-north-eastward, its eastern side just skirting our western coasts where fresh southerly gales were experienced, and some rain. This had no sooner passed and a slight recovery of pressure been effected in the west, than the barometer again fell; temperature rose suddenly, and a new disturbance passed north-eastwards over our western and northern coasts, accompanied by the more serious gales shown on Fig. 78, and in the following Table.

Observatories, Dec. 28–31, 1873.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Valencia	5 p.m. (28th).	S.S.E.	4 a.m. (29th). 9 a.m. (30th).	S. by E. S.S.W.	50 48	21 7	Midngt. (30th).	W.S.W.	55	9 a.m. (29th).	S. by E.	58	—
Armagh	6 p.m. (29th).	S.S.E.	—	—	—	—	7 a.m. (30th).	S. by W.	13	11 p.m. (29th).	S.S.E.	40	Freshened to 31 miles at 5 and 6 p.m., 30th, from S.
Glasgow	3 a.m. (30th).	S. by E.	—	—	—	—	10 a.m. (30th).	S. by W.	7	3 a.m. (30th).	S. by E.	39	—
Aberdeen	8 p.m. (30th).	S.S.E.	—	—	—	—	11 p.m. (30th).	S. by E.	3	8 p.m. (30th).	S.S.E.	33	—
Sandwick.	9 p.m. (29th).	S.	10 p.m. (29th). 6 a.m. (30th).	S. S. by E.	41 41	4 5	Midngt. (30th).	S.	20	1 & 10 a.m. (30th).	S.	44	Lull for 7 hours, 1 to 8 p.m., 30th.
	6 p.m. (31st).	W.S.W.	—	—	—	—	4 a.m. Jan. 1st.	W.	10	9 p.m. (31st).	W.	42	For one hour only.
Falmouth	11 a.m.? (29th).	S.S.E.?	—	—	—	—	11 p.m. (30th).	S.S.W.	36?	7 p.m. (29th).	S.S.E.	42	For one hour only. Instrument out of action from 11 a.m. 28th, till 10 a.m. 29th.
Holyhead	9 p.m. (28th).	S.	3 a.m. (29th). 5 p.m. (30th).	S.S.E. S.S.W.	50 50	32 5	Midngt. (30th).	S.W. by S.	51	4 a.m. (30th).	S. by E.	60	—
Stonyhurst	1 a.m. (30th).	S.S.E.	—	—	—	—	6 p.m. (30th).	S. by E.	14	4 a.m. (30th).	S.E. by S.	38	Lull for 3 hours 6–9 a.m. 30th.
Moorside	11 p.m. (30th).	S.S.W.	—	—	—	—	2 a.m. (31st).	S.W.	3	11 p.m. and Midnt. (30th).	S.S.W.	34	—
Seaham	10 a.m. (30th).	S.	—	—	—	—	Noon (30th).	S.	2	11 a.m. (30th).	S.	34	—
Alnwick Castle.	6 a.m. (30th).	S.	—	—	—	—	9 a.m. (30th).	S.	3	6 a.m. (30th).	S.	42	For one hour only.

The lowest reading was recorded at Valencia at 3 p.m. on the 30th, reaching Aberdeen by 3 a.m. on the 31st, and in each case a brisk recovery ensued, accompanied by a slight fall of the thermometer, and a rapidly decreasing wind. At 8 a.m. on the 31st the gale had entirely ceased in our Islands, though it still blew hard in Denmark and the south of Norway (*see* Fig. 79). The year closed with rapidly increasing pressure and improving weather; and it is worthy of especial remark, how very free from rain the month of December was on all but our most north-western and northern coasts, even during the prevalence of the gales above-mentioned.

REMARKS.

Wind—

The following table gives for each month and for the entire quarter the number of hours during which the wind reached or exceeded the velocity of 30 miles per hour, irrespective of its direction.

Stations.	Oct.	Nov.	Dec.	Total.	Stations.	Oct.	Nov.	Dec.	Total.
Valencia - -	86	94	115	295	Stonyhurst -	6	51	42	99
Armagh - -	—	7	35	42	Halifax - -	10	46	25	81
Glasgow - -	38	56	92	186	Seaham - -	16	39	25	80
Aberdeen - -	34	41	33	108	Alnwick Castle -	68	96	197	361
Sandwick - -	138	136	*270	544?	Kew - - -	5	15	1	21
Falmouth - -	49	172	†40?	261?	Yarmouth - -	3	‡103?	7	113?
Holyhead - -	169	280	139	588					

* 28 hours lost, 5th–6th; velocity high at the time. † 24 hours lost, 28th–29th; velocity high at the time.
‡ 8 days lost, 11th to 19th. Anemometer undergoing repair.

This table presents some very unusual features. Owing to the large number of westerly gales which passed over the north of our islands, Sandwick has recorded almost as many hours of strong wind as Holyhead, while Alnwick Castle experienced many more than either Valencia or Falmouth. The sheltered position of Armagh is shown by the fact that only 42 hours of strong wind have been registered during the quarter.

The next Table is drawn up in a manner precisely similar to the last, but gives merely the total values for the whole year.

Observatories.	Number of Hours above 30 miles, whole Year.	Observatories.	Number of Hours above 30 miles, whole Year.
Valencia - -	*1,181?	Stonyhurst - -	181
Armagh - -	131	Halifax - -	187
Glasgow - -	293	Seaham - -	252
Aberdeen - -	267	Alnwick Castle -	§699?
Sandwick - -	†1,371?	Kew - -	138
Falmouth - -	‡947?	Yarmouth - -	‖688?
Holyhead - -	2,002		

* 53 hours lost, August 28th–30th.

† 16 hours lost April, 28 hours lost December.

‡ 25 hours lost April, 24 hours lost December.

§ 9 days lost, June 14th–23rd.

‖ 9 days lost, February 9th, and November 11th–19th.

Pressure—

The four succeeding tables give the averages and extremes of pressure during each month of the quarter and the whole year, in the usual manner.

October.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	ins.	ns.	ins.	d. h.	ins.	d. h.	ins.
Valencia - -	29·847	−·073	30·526	27th, 10 p.m.	28·940	23rd, 1 p.m.	1·586
Armagh - -	·780	−·030	·544	27th, 11 p.m.	·818	31st, midt.	1·726
Glasgow - -	·693	−·087	·431	27th, 10 p.m.	·744	22nd, 5 p.m. and 6 p.m.	1·687
Aberdeen - -	.653	−·132	·352	27th, 9 p.m. and 10 p.m.	28·642	22nd, 4 p.m.	1·710
Falmouth - -	·915	+·002	·549	27th, midt. 28th, 1 a.m.	29·022	23rd, noon	1·527
Stonyhurst - -	·796	−·020	·538	27th, midt.	28·862	23rd, 1 p.m.	1·676
Kew - - -	29·881	−·014	30·548	28th, 7 a.m. and 8 a.m.	28·955	23rd, 1 p.m.	1·593

Throughout the kingdom the barometer was, on the whole, lower than the average, especially in Scotland. The maximum readings occurred, with one exception, on the 27th, and exceeded 30·5 ins. over England and Ireland; while the minimum had occurred at nearly all stations only a few days previously. The range was comparatively uniform, though rather greater in the north than elsewhere.

November.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	ins.	ins.	ins,	d. h.	ins.	d. h.	ins.
Valencia - -	29·892	−·123	30·507	16th, 10 p.m. and 11 pm.	29·016	1st, 11 p.m. and midt.	1·491
Armagh - -	·890	+·008	·613	16th, noon	28·674	1st, 2 a.m.	1·939
Glasgow - -	·839	−·030	·588	16th, 11 p.m.	·465	1st, 6 a.m. and 7 a.m.	2·123
Aberdeen - -	·819	−·052	·543	16th, 11 a.m.	28·378	1st, 10 a.m.	2·165
Falmouth - -	·884	−·100	·529	30th, midt.	29·149	5th, 4 p.m.	1·380
Stonyhurst -	·871	−·014	·580	16th, 10 p.m. and 11 p.m.	28·857	1st, 5 a.m.	1·723
Kew - - -	29·893	−·074	30·498	16th, midt.	29·108	1st, 7 a.m.	1·390

In November there was again a deficiency in the atmospherical pressure except at Armagh, but in this case the deficit was most marked in the south-west. The highest of the maximum readings occurred at Armagh, while the lowest was recorded at Kew; these again, with the exception of that at Falmouth, were all recorded on one day (the 16th), and a similar agreement is found in the date of the minima, which were experienced on the 1st, except at Falmouth. The range was much larger in the North than elsewhere.

December.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	ins.	ins.	ins.	d. h.	ins.	d. h.	ins.
Valencia - -	30·184	+·370	30·600	13th, 11 a.m.	29·162	30th, 3 p.m.	1·438
Armagh - -	·133	+·249	·625	11th, 11 a.m.	·100	30th, 8 p.m.	1·525
Glasgow - -	*30·027	+·211	·592	11th, midt.	29·052	30th, 11 p.m.	1·540
Aberdeen - -	*29·953	+·135	·553	12th, 1 a.m.	28·973	16th, 7 a.m.	1·580
Falmouth - -	30·311	+·247	·668	3rd, 10 a.m.	29·502	31st, 1 a.m.	1·166
Stonyhurst - -	·185	+·333	.664	12th, 11 a.m.	·278	31st, 1 a.m.	1·386
Kew - - -	30·301	+·269	30·676	13th, 10 a.m.	29·528	31st, 7 a.m.	1·148

* Mean of 30 days only.

A change now took place, for in December the barometer stood much higher than the average in all parts of the country, especially in Ireland and England. The maxima exceeded 30·6 in. at all but the Scotch stations, and were recorded in nearly all places between the 11th and 13th, the single exception being again Falmouth. The minima, which were far from being low for the time of year, occurred generally on the 30th or 31st, but Aberdeen had experienced its lowest pressure with the depression of the 16th. The range was rather small, especially in the south of England.

For the whole year.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	ins.	ins.	ins.	d. h.	ins.	d. h.	ins.
Valencia - -	29·933	+·018	*30·754?	Feb. 11th, 10 a.m.	28·295	Jan. 20th, 8 a.m.	2·459?
Armagh - -	·909	+·044	·730	„ 18th, 10 a.m.	·264	„ 20th, 1 a.m.	2·466
Glasgow - -	·858	+·029	·674	„ 18th, 11 a.m.	†·222?	„ 19th, 8 p.m.	2·452?
Aberdeen - -	·838	−·003	·594	„ 18th, noon and 8 p.m.	·146	„ 20th, 4 a.m.	2·448
Falmouth - -	·986	−·013	·714	„ 18th, 11 a.m. and noon.	·542	„ 20th, 6 a.m. and 7 a.m.	2·172
Stonyhurst - -	·922	+·045	·756	„ 18th, 11 a.m.	†·377?	„ 20th, 10 a.m.	2·379?
Kew -	29·968	+·010	30·825	Feb. 18th, 11 a.m.	28·474	Jan. 20th, 1 a.m.	2·351

* Highest reading registered; no trace for the next hour.
† Lowest reading of standard barometer recorded; light cut off from barograph. Actual minimum probably lower.

When we examine the values for the whole year we find that while at Aberdeen and Falmouth readings were rather below, elsewhere they were slightly above the normal values. The unusually high pressures of February 18th produced the maximum readings at all the observatories, while the deep depression of January 20th is answerable for all the minima. Thus in the space of about one month the greatest range occurred, amounting in most places to nearly two and a half inches of the barometric column.

Temperature.—

The next four Tables give values for shade temperature similar to those just quoted for pressure—

October.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	d. h.	°	d. h.	°
Valencia - -	50·5	− 2·4	62·5	1st, 1 p.m.	35·5	27th, 7 a.m.	27·0
Armagh - -	45·9	− 3·3	63·2	2nd, noon	29·9	24th, 7 a.m.	33·3
Glasgow - -	44·7	− 2·8	55·4	10th, 4 a.m.	28·0	27th, 8 a.m.	27·4
Aberdeen - -	44·5	− 1·8	56·2	10th, 5 a.m.	32·1	16th, 2 a.m.	24·1
Falmouth - -	51·1	—	66·3	1st, 1 p.m.	37·4	28th, 5 a.m.	28·9
Stonyhurst -	46·0	− 2·2	66·7	3rd, 3 p.m.	29·4	27th, 7 a.m.	37·3
Kew - - -	47·8	− 2·1	71·7	3rd, noon	26·4	30th, 8 a.m.	45·3

October was rather a cold month, though in the early part of it we had a reading as high as 71·°7 at Kew, and upwards of 66° at the two other English observatories, and more than 63° in Ireland. The greatest heat in Scotland was recorded early on the morning of the 10th. The coldest mornings (except at Aberdeen) prevailed at the end of the month, when the thermometer fell to a very low point for the time of year. The range was greatest at the inland stations, and at Kew it exceeded 45°.

November.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	h. d.	°	d. h.	°
Valencia - -	47·1	+ 0·3	55·0	26th, 9 a.m.	35·0	2nd, 7 a.m.	20·0
Armagh - -	42·7	+ 0·3	55·0	23rd, 1 a.m.	32·4	15th, midt.	22·6
Glasgow - -	41·6	+ 1·3	52·7	23rd, 1 a.m.	26·0	16th, 3 a.m.	26·7
Aberdeen - -	42·3	+ 2·4	52·5	28th, 9 p.m.	29·9	5th, 7 a.m.	22·6
Falmouth - -	48·0	—	56·0	24th, noon.	37·5	12th, 3 a.m.	18·5
Stonyhurst - -	42·8	+ 1·7	53·4	26th, 6 p.m.	29·4	16th, 4 a.m.	24·0
Kew - - -	44·9	+ 1·7	57·8	23rd, 8 a.m.	27·0	13th, 6 a.m.	30·8

November was warmer than usual, though rather cold about the middle of the month. The greatest heat occurred everywhere except at Aberdeen between the 23rd and 26th, while the minimum was felt in most places between the 12th and 16th. The range was greatest at Kew and least at Falmouth.

December.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
	°	°	°	D. H.	°	D. H.	°
Valencia - -	49·0	+2·7	54·6	16th, 10 a.m.	34·4	28th, 2 a.m.	20·2
Armagh - -	44·4	+3·0	55·0	16th, 4 a.m.	29·9	28th, 8 a.m.	25·1
Glasgow - -	*43·8	+3·7	54·3	16th, 3 a.m.	29·3	28th, 7 a.m.	25·0
Aberdeen - -	42·1	+3·6	56·2	16th, 3 a.m.	29·7	28th, 9 a.m.	26·5
Falmouth - -	47·5	—	54·8	16th, 1 p.m.	37·6	28th, 6 a.m.	17·2
Stonyhurst - -	42·4	+2·9	52·2	16th, 6 a.m.	25·5	12th, 7 a.m.	26·7
Kew - -	40·9	+1·5	56·1	16th, 11 a.m.	20·5	10th, 10 a.m.	35·6

* Mean of 30 days only.

At the Irish and Scotch observatories the temperature in December was both relatively and actually higher than it was in November. The excess of heat for the month was consequently still more marked than that in November. In all parts of the Kingdom the thermometer rose to its highest point before sunrise of the 16th, when readings were singularly uniform; while, excepting at Stonyhurst and Kew, the lowest point was reached on the 28th. At the two latter observatories, however, the coldest weather was experienced earlier, and Kew recorded nearly 12° of frost, in the shade, at 10 a.m. on the 10th. The range was very uniform at the more northern observatories, and, as usual, smallest at Valencia and Falmouth.

FOR THE WHOLE YEAR.

Observatories.	Mean.	Difference from Average.	Maximum.	Day and Hour.	Minimum.	Day and Hour.	Range.
Valencia - -	50°·8	−0°·3	71°·8	July 21st, 3 p.m.	25°·2	Feb. 3rd, 4 a.m.	46°·6
Armagh - -	47·7	−1·2	74·4	„ 22nd, 3 p.m.	20·2	„ 24th, 7 a.m.	54·2
Glasgow - -	46·7	−0·2	*81·4?	„ 22nd, ?	22·4	„ 24th, 6 a.m.	59·0?
Aberdeen - -	46·1	+0·5	77·2	„ 21st, 3 p.m.	12·5	„ 25th, 3 a.m.	64·7
Falmouth - -	51·2	—	76·0	„ 22nd, 1 p.m.	32·7	„ 3rd, 4 p.m.	43·3
Stonyhurst - -	47·3	+0·4	*88·1?	„ 22nd, ?	12·7	Feb. 24th, 5 a.m.	75·4?
Kew - - -	49·3	+0·4	86·5	July 22nd, 2 p.m.	20·5	Dec. 10th, 10 a.m.	66·0

* Corrected reading of Phillip's max. therm., curve being indistinct.

Taking the whole year through the temperature differed very little indeed from the average. In Ireland it was a trifle below, and in England a little above, the mean. The greatest heat occurred everywhere on the afternoon of July 22nd, and the sharpest cold on Feb. 24th, in the N. and N.W. The range was extremely large at Stonyhurst.

The following is a comparison of the five-day means (civil time) for Kew with those for 43 years at Greenwich—

Dates.	Variation.	Dates.	Variation.	Dates.	Variation.
Sept. 28–Oct. 2	+ 0°·8	Oct. 28–Nov. 1	− 8°·7	Nov. 27–Dec. 1	+ 4°·6
Oct. 3–7	+ 2·6	Nov. 2–6	− 1·7	Dec. 2–6	+ 3·4
„ 8–12	+ 0·2	„ 7–11	+ 0·8	„ 7–11	− 7·8
„ 13–17	− 3·9	„ 12–16	− 2·6	„ 12–16	− 1·4
„ 18–22	+ 0·7	„ 17–21	+ 0·8	„ 17–21	+ 8·2
Oct. 23–27	− 5·5	Nov. 22–26	+ 8·0	„ 22–26	+ 7·1
				Dec. 27–31	+ 0·1

The changes of temperature at Kew may be briefly described thus. The earlier part of October was rather warm; then came a cold period lasting with little intermission until the middle of November, then a warm period till December 6th, followed by a cold interval of ten days, and subsequently by warm weather till the end of the year.

RAINFALL.

The next Table gives the rainfall statistics for each station during each month in the quarter, and is arranged similarly to those given in the earlier parts of the Quarterly Weather Report. The average values hitherto employed for Stornoway having proved faulty, corrected values have been used in this Table, and the "difference from the average" in former Tables will need modification. *See* the list of "Errata."

RAINFALL, 1873.

Position of Gauges.				October.							November.							December.						
Names of Stations.	Height of Gauge. Above Ground.		Height of Gauge. Above Mean Sea Level.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Days.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 Hours.	Day.	No. of Rainy Days.	Total Fall in the Month.	Difference from the Average.	Greatest Fall in 24 Hours.	Day.	No. of Falls exceeding 1 inch in 24 hours.	Day.
Observatories.																								
	ft.	in.	ft.																					
Valencia	2	0	11	24	6·47	+0·06	0·87	8th	0	—	21	4·39	−1·68	1·06	4th	1	4th	20	2·56	−4·14	0·63	30th	0	—
Armagh	2	2	204	22	2·63	−0·61	0·49	2nd	0	—	15	2·48	−0·03	0·52	5th	0	—	15	0·94	−1·84	0·20	26th	0	—
Glasgow	1	10	180	22	5·76	+1·49	0·89	2nd	0	—	16	2·16	−1·23	0·45	25th	0	—	20	2·13	−1·98	0·30	15th	0	—
Aberdeen	2	0	48	20	2·77	−0·42	0·82	31st	0	—	18	4·51	+2·50	2·78	6th	1	6th	15	1·47	−1·67	0·52	23rd	0	—
Falmouth	1	10	167	22	4·60	+0·33	0·63	22nd	0	—	22	4·20	−1·00	0·80	5th	0	—	16	1·16	−3·03	0·35	30th	0	—
Stonyhurst	1	9	377	20	8·90	+3·60	1·24	9th	3	2nd, 9th, & 21st.	21	3·46	−0·46	0·79	21st	0	—	21	2·29	−2·29	0·37	1st	0	—
Kew	1	10	20	13	3·03	+0·90	1·05	12th	1	12th	11	2·02	+0·29	0·53	5th	0	—	6	0·40	−1·31	0·21	26th	0	—
Telegraphic Reporting Stations.																								
Sumburgh Head	1	9	170	18	4·42	+1·63	0·90	30th	0	—	16	5·47	+2·92	1·80	5th	1	5th	26	4·78	+1·22	0·92	15th	0	—
Stornoway	1	0	30	30	6·46	+1·58	0·93	6th	0	—	19	3·60	−0·70	0·65	26th	0	—	29	5·32	−0·77	0·44	15th	0	—
Thurso	1	9	25	30	7·80	+4·73	1·40	12th	1	12th	19	4·72	+0·92	1·02	1st	1	1st	23	3·96	+0·44	0·61	20th	0	—
Wick	1	9	100	28	5·41	+2·49	0·75	12th	0	—	15	3·89	+1·13	1·30	5th	1	5th	19	2·05	−0·66	0·38	12th	0	—
Nairn	1	2	44	24	2·47	+0·22	0·48	31st	0	—	15	2·59	+0·98	0·59	6th	0	—	17	2·59	−0·07	0·50	23rd	0	—
Leith	1	2	21	13	3·81	+2·54	0·64	2nd	0	—	14	1·70	+0·81	0·47	7th	0	—	11	1·46	−0·14	0·45	5th	0	—
North Shields	10	0	107	16	1·66	−1·02	0·98	2nd	0	—	14	0·82	−1·40	0·29	6th	0	—	11	0·40	−2·12	0·13	5th	0	—
York	1	9	53	17	1·93	−1·05	0·40	2nd	0	—	15	1·66	−0·16	0·82	6th	0	—	9	0·31	−2·22	0·09	26th	0	—
Scarborough	1	0	130	16	2·27	−1·04	0·60	2nd	0	—	12	1·39	−0·88	0·35	6th	0	—	7	0·40	−2·34	0·20	26th	0	—
Nottingham	0	5	162	18	1·74	−0·96	0·37	21st	0	—	19	2·15	+0·25	0·75	6th	0	—	9	0·29	−1·81	0·08	26th	0	—
Ardrossan	1	2	13	23	6·40	+2·46	1·01	2nd	1	2nd	17	2·69	−0·73	0·68	25th	0	—	21	2·18	−2·36	0·32	30th	0	—
Greencastle	7	6	70	28	7·16	+2·20	0·85	9th	0	—	19	2·70	−1·73	0·46	5th	0	—	26	3·36	−0·75	0·41	26th	0	—
Donaghadee	1	9	33	18	2·12	?	0·69	2nd	0	—	14	1·48	?	0·39	6th	0	—	9	0·31	?	0·10	30th	0	—
Kingstown	3	5	50	17	2·43	−0·70	0·96	24th	0	—	11	1·39	−0·84	0·32	5th	0	—	7	0·50	−2·44	0·13	29th	0	—
Holyhead	*5	0	48	22	7·39	+3·26	1·32	30th	1	30th	15	1·59	−0·93	0·30	20th	0	—	12	1·34	−2·98	0·26	30th	0	—
Liverpool (Bidston Observatory).	0	6	180	20	3·21	−0·99	0·47	8th	0	—	17	1·84	−0·75	0·31	1st	0	—	11	0·83	−2·38	0·22	27th	0	—
Roche's Point	1	9	23	16	3·44	−0·12	0·82	29th	0	—	20	4·15	+0·52	1·52	4th	1	4th	16	1·18	−5·31	0·45	30th	0	—
Pembroke	0	9	125	27	3·05	−2·96	0·53	9th	0	—	24	2·88	−1·53	0·43	5th	0	—	21	1·15	−3·83	0·33	30th	0	—
Portishead	1	9	48	19	3·47	?	0·89	29th	0	—	13	1·89	?	0·73	5th	0	—	11	0·65	?	0·22	19th	0	—
Scilly	1	9	100	21	3·37	?	0·54	6th	0	—	23	3·33	?	0·57	26th	0	—	18	0·93	?	0·26	30th	0	—
Plymouth	10	0	75	16	1·90	−1·61	0·26	22nd	0	—	20	3·72	+0·71	1·16	5th	1	5th	12	0·71	−3·87	0·43	30th	0	—
Portsmouth	1	0	16	17	3·38	+0·87	0·62	7th	0	—	14	2·26	+0·91	0·45	9th	0	—	9	0·66	−2·61	0·25	30th	0	—
Dover	23	0	46	17	3·75	+0·44	0·65	22nd	0	—	16	3·51	+0·15	1·10	7th	1	7th	10	0·58	−2·50	0·25	27th	0	—
London	1	2	73	15	3·22	+0·90	1·15	12th	1	12th	14	2·44	+0·99	0·48	2nd	0	—	7	0·37	−2·41	0·14	27th	0	—
Oxford	0	11	209	14	2·58	−0·05	0·62	12th	0	—	12	1·71	−0·04	0·49	6th	0	—	8	0·45	−1·55	0·12	26th	0	—
Cambridge	1	0	85	13	2·65	+0·44	0·76	12th	0	—	14	1·81	+0·39	0·73	2nd	0	—	6	0·38	−1·67	0·10	19th & 30th	0	—
Yarmouth	3	3	11	15	2·17	−0·80	0·82	12th	0	—	15	1·37	−1·00	0·46	8th	0	—	14	0·80	−3·81	0·37	27th	0	—
Extra Stations. (Information supplied by societies, private individuals, and others.)																								
Barnstaple	0	8	31	19	4·46	−0·74	0·89	22nd	0	—	22	2·14	−0·97	0·38	26th	0	—	18	1·45	−2·32	0·24	19th	0	—
Brighton	0	8	200	20	4·45	+0·62	0·82	22nd	0	—	16	2·75	+0·34	0·60	1st	0	—	10	0·65	−1·84	0·20	26th	0	—
Chiswick	0	9	25	17	3·10	+0·47	1·10	12th	1	12th	14	1·98	−0·12	0·48	2nd	0	—	9	0·55	−0·98	0·15	27th	0	—
Dublin	3	0	57	18	3·09	−0·06	1·17	24th	1	24th	14	2·01	−0·74	0·51	13th	0	—	7	0·69	−1·71	0·30	18th	0	—
Durham	4	6	335	15	2·00	−0·70	0·74	2nd	0	—	16	2·05	−0·34	0·54	7th	0	—	7	0·43	−2·31	0·15	21st	0	—
Florence Court (co. Fermanagh).	1	9	289	22	3·91	−0·19	0·50	31st	0	—	14	2·61	−1·21	0·52	26th	0	—	17	2·36	−2·44	0·45	15th	0	—
Galway	8	2	30	23	5·50	+0·50	0·87	2nd	0	—	18	2·92	−1·25	0·65	5th	0	—	19	1·84	−3·16	0·27	15th	0	—
Guernsey	12	0	204	19	3·21	−1·20	0·70	31st	0	—	17	5·18	+1·34	1·08	6th	1	6th	13	1·08	−2·79	0·25	30th	0	—
Helston	5	0	115	19	3·61	−0·47	0·44	8th	0	—	21	4·31	−0·16	0·70	6th	0	—	10	1·14	−2·57	0·29	31st	0	—
Jersey	36	11	39	18	2·83	−0·84	0·47	24th	0	—	16	3·19	+0·15	0·58	7th	0	—	13	0·91	−2·27	0·15	27th & 30th	0	—
Norwich	30	0	53	13	2·10	−0·69	0·79	12th	0	—	11	0·91	−1·37	0·22	5th	0	—	7	0·43	−1·59	0·16	26th	0	—
Parsonstown	0	8	183	30	4·18	+0·44	1·02	2nd	1	2nd	22	2·06	−0·65	0·41	21st	0	—	19	1·16	−1·75	0·24	19th	0	—
Rugby	3	0	383	16	1·98	−0·63	0·41	21st	0	—	14	1·63	+0·15	0·53	6th	0	—	10	0·61	−0·93	0·20	19th	0	—
Sandwick	2	0	78	28	6·56	+2·05	0·82	10th	0	—	18	4·69	+0·47	1·16	21st	1	21st	22	4·29	+0·09	0·96	12th	0	—

* The rain gauge was shifted to this position at the beginning of November. In October the heights were { 0 ft. above ground. 24 ft. above M.S.L. }

Over the eastern and central parts of England there was a general deficiency in the rainfall during October, but elsewhere the fall was large, especially in the north and north-west. At Stonyhurst more than an inch fell in the 24 hours on three distinct occasions. November showed an excess both in the north and south, but a deficiency west and east; while in December a decided drought set in on all but our extreme northern coasts, especially in the South of Ireland.

The next Table shows the total rainfall and for number of rainy days for the whole year for each station, together with the difference from the average. From it it appears that at the most northern and western of our stations the rainfall was above the average; elsewhere the year was, on the whole, dry.

RAINFALL for the whole Year, 1873.

Names of Stations.	No. of Rainy Days.	Total Fall.	Difference from the Average.
OBSERVATORIES.			
Valencia	248	59·49	+ 2·87
Armagh	208	29·83	+ 0·15
Glasgow	217	38·89	− 3·94
Aberdeen	204	31·42	+ 3·00
Falmouth	216	44·00	+ 3·42
Stonyhurst	251	47·53	+ 1·51
Kew	149	21·87	− 1·03
TELEGRAPHIC REPORTING STATIONS.			
Sumburgh Head	200	39·65	−13·51
Stornoway	266	45·23	− 4·35
Thurso	277	39·85	+ 9·44
Wick	225	27·95	+ 3·83
Nairn	194	26·98	+ 3·05
Leith	167	25·00	+ 5·16
North Shields	191	16·26	− 9·00
York	183	19·63	− 4·65
Scarborough	?158*	19·92	− 5·90
Nottingham	182	22·45	− 3·15
Ardrossan	221	39·39	− 0·73
Greencastle	263	43·37	+ 4·03
Donaghadee	202	24·22	?
Kingstown	175	23·02	− 4·43
[illegible]head	179	29·38	− 2·05
Liverpool (Bidston Observatory).	186	24·54	− 2·08
Roche's Point	201	45·84	− 1·06
Pembroke	234	29·18	−18·06†

Names of Stations.	No. of Rainy Days.	Total Fall.	Difference from the Average.
TELEGRAPHIC REPORTING STATIONS—*continued.*			
Portishead	176	32·71	?
Scilly	222	31·69	?
Plymouth	180	30·24	− 8·71
Portsmouth	150	24·06	− 2·72
Dover	166	25·06	− 6·01
London	157	23·05	− 1·45
Oxford	169	23·38	− 2·50
Cambridge	158	20·62	− 0·77
Yarmouth	166	19·81	−10·00
EXTRA STATIONS.			
Barnstaple	205	39·20	+ 1·29
Brighton	179	25·42	− 0·78
Chiswick	155	23·11	− 0·38
Dublin	189	23·83	− 5·19
Durham	172	23·06	− 3·26
Florence Court (co. Fermanagh).	183	40·36	− 1·56
Galway	227	48·08	− 1·96
Guernsey	177	37·44	+ 0·87
Helston	191	~~39·15~~	+ 1·58
Jersey	179	34·49	+ 3·43
Norwich	142	20·31	− 3·52
Parsonstown	252	36·10	+ 4·77
Rugby	180	21·56	− 2·68
Sandwick (Orkney Islands).	225	37·73	− 0·94

2/

·90/

3/

38·91/

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* The observer was ill for the first nine days of July, and though the accumulated rainfall for that period is given, we have no means of finding the number of days on which it fell.

† The average employed for this station is that for Haverfordwest, distant about 15 miles from it.

APPENDIX.

APPENDIX I.

TABLE I.—MEAN MONTHLY RESULTS from the continuous RECORDS at the SEVEN BRITISH OBSERVATORIES for the Year 1873.

VALENCIA.

MONTHS.	THERMOMETER.					BAROMETER.					PRESSURE.	
	Means.	Extremes.				Means.	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	°	D. H.	°	D. H.	°	in.	D. H.	in.	D. H.	in.	in.	in.
January -	45·5	13th, 3 p.m.	52·7	19th, 7 and 9 p.m.	31·4	29·489	29th, 9 a.m.	29·981	20th, 8 a.m.	**28·270**	·249	29·240
February -	41·9	19th, 2 p.m.	50·5	3rd, 4 a.m.	**25·2**	30·129	11th, 10 a.m.	**†30·728?**	25th, Midnt.	·675	·210	·919
March -	44·5	25th, Noon.	56·8	13th, 7 a.m.	34·3	29·761	19th, Midnt.	·196	1st, 11 a.m.	28·827	·235	·526
April -	*49·5	19th, 1 p.m.	65·8	24th, 6 a.m.	36·4	30·087	9th, 10 and 11 a.m.	·445	14th, 6 a.m.	29·428	·271	·816
May -	52·7	13th, 5 p.m.	68·0	19th, 5 a.m.	40·9	29·970	28th, 11 p.m.	·374	5th, 4 a.m.	·328	·310	·660
June -	57·0	21st, 4 p.m.	68·5	15th, 5 a.m.	45·9	·965	7th, 1 p.m.	·394	11th, 3 p.m.	·441	·380	·585
July -	58·5	21st, 3 p.m.	**71·8**	16th, 5 a.m.	48·8	·832	18th, 10 and 11 p.m.	·188	5th, 4 p.m.	·354	·409	·423
August -	58·7	24th, 3 p.m.	68·2	28th, 8 and 11 p.m.	51·0	·871	9th, 8 p.m.	·247	27th, 11 p.m.	·193	·408	·463
September -	55·1	24th, 2 p.m.	63·4	29th, 1 a.m.	42·0	·943	22nd, 10 a.m.	·520	14th Midnt.	29·203	·348	·595
October -	50·5	1st, 1 p.m.	62·5	27th, 7 a.m.	35·5	·822	27th, 10 p.m.	·499	23rd, 1 p.m.	28·915	·314	·508
November -	47·1	26th, 9 a.m.	55·0	2nd, 7 a.m.	35·0	29·867	16th, 10 and 11 p.m.	·480	1st, 11 p.m. and Midnt.	28·991	·267	[illegible]0
December -	49·0	16th, 10 a.m.	54·6	28th, 2 a.m.	34·4	30·159	13th, 11 a.m.	30·574	30th, 3 p.m.	29·137	·29[illegible]	[illegible]9·863
Annual -	50·8	—	—	—	—	29·908	—	—	—	—	·308	29·600

* 29 days.

† Highest reading registered; no trace for next hour.

Table I.—Mean Monthly Results, &c.—*continued.*

ARMAGH.

Months.	Thermometer.					Barometer.					Pressure.	
	Means.	Extremes.				Means.	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	°	D. H.	°	D. H.	°	in.	D. H.	in.	D. H.	in.	in.	in.
January -	40·8	13th, 8 p.m.	52·0	20th, 8 p.m.	25·7	29·272	31st, 2 a.m.	29·911	20th 1 a.m.	**28·040**	·223	29·049
February -	36·5	20th, 4 p.m.	47·8	24th, 7 a.m.	**20·2**	·941	18th, 10 a.m.	**30·491**	26th, 5 a.m.	·556	·190	·751
March -	41·4	26th, 2 p.m.	57·5	23rd, 4 a.m.	29·8	·572	20th, Midnt.	·050	1st, 2 and 3 p.m.	28·785	·219	·353
April -	46·2	21st, 2 p.m.	62·4	25th, 5 a.m.	30·7	·878	9th, 10 p.m.	·268	16th, 4 and 6 p.m.	29·397	·244	·634
May -	49·5	30th, 2 p.m.	67·9	7th, 5 a.m.	33·6	·740	29th, 8 a.m.	·210	6th, 3 a.m.	·138	·275	·465
June -	56·9	21st, 4 p.m.	71·4	16th, 4 a.m.	44·6	·729	7th, 9 a.m.	30·171	10th, 4 a.m.	·218	·360	·369
July -	58·5	22nd, 3 p.m.	**74·4**	14th, 5 a.m.	46·2	·601	16th, Noon.	29·876	5th, 10 p.m.	·176	·409	·192
August -	57·2	7th, 3 p.m.	69·7	29th, 6 a.m.	46·6	·625*	1st, 10 p.m.	29·936	28th, 3 a.m.	†·148?	·403	·222
September -	51·8	27th, 2 p.m.	67·0	22nd, 5 a.m.	37·6	·698	22nd, 9 a.m.	30·364	15th, 1 a.m.	29·054	·323	·375
October	45·9	2nd Noon	63·2	24th, 7 a.m.	29·9	·551	27th, 11 p.m.	·304	31st, Midnt.	28·597	·270	·281
November -	42·7	23rd, 1 a.m.	55·0	15th, Midnt.	32·4	·658	16th, Noon.	·374	1st, 2 a.m.	·453	·237	·421
December -	44·4	16th, 4 a.m.	55·0	28th, 8 a.m.	29·9	29·900	11th, 11 a.m.	30·384	30th, 8 p.m.	28·875	·252	29·648
Annual -	47·7	—	—	—	—	29·680	—	—	—	—	·284	29·397

* 29 days. † Lowest reading recorded, trace faint for 10 hours.

GLASGOW.

	°	D. H.	°	D. H.	°	in.	D. H.	in.	D. H.	in.	in.	in.
January -	40·0	13th, 9 p.m.	51·4	25th, 1 a.m.	25·6	*29·348	31st, 11 a.m.	30·026	19th, 8 p.m.	†**28·023**?	·215	29·133
February -	‡35·7	20th, Noon.	47·8	24th, 6 a.m.	**22·4**	§897	18th, 11 a.m.	**·462**	26th, 2 p.m.	·626	·174	·723
March -	39·4	28th, 4 p.m.	55·1	1st, 2 a.m.	28·6	·598	20th, Midnt. & 21st, 1 a.m.	·075	11th, 5 a.m.	28·715	·203	·395
April -	45·5	21st, 4 p.m.	67·0	24th, 6 a.m.	32·2	·844	9th, 10 p.m.	·284	6th, 8 a.m.	29·414	·218	·626
May -	47·4	31st, 3 p.m.	66·1	4th, 5 a.m.	33·0	·711	29th, 8 a.m.	·195	5th, Midnt. & 6th, 1 a.m.	·085	·241	·470
June -	56·0	5th, 2 p.m.	69·4	1st, 3 a.m.	42·0	·698	2nd, 5 a.m.	30·098	10th, 7 a.m.	·193	·345	·353
July -	58·2	22nd ?	‖**81·4**?	5th, 4 a.m.	44·1	·593	21st, 10 a.m.	29·879	6th, 2 a.m.	·234	·387	·206
August -	¶56·2	7th, 3 p.m.	68·6	31st, 6 a.m.	41·5	·577	24th, 11 p.m.	29·852	28th, 3 a.m.	·146	·370	·207
September -	51·4	27th, 1 p.m.	68·7	7th, 6 a.m.	35·4	·641	22nd, 8 a.m.	30·284	15th, 3 a.m.	29·064	·299	·342
October -	44·7	10th, 4 a.m.	55·4	27th, 8 a.m.	28·0	·489	27th, 10 p.m.	·222	22nd, 5 and 6 p.m.	28·544	·251	·238
November -	41·6	23rd, 1 a.m.	52·7	16th, 3 a.m.	26·0	·633	16th, 11 p.m.	·373	1st, 6 and 7 a.m.	·268	·220	·413
December -	**43·8	16th, 3 a.m.	54·3	28th, 7 a.m.	29·3	**29·821	11th, Midnt.	30·379	30th, 11 p.m.	28·853	·244	29·577
Annual -	46·7	—	—	—	—	29·654	—	—	—	—	·264	29·390

* 27 days. † Lowest reading of standard barometer recorded, light cut off from barograph. Minimum probably lower.
‡ 26 days. § 20 days. ‖ Corrected reading of Phillips' maximum thermometer, the curve being indistinct for 8 hours.
¶ 25 days. ** 30 days.

Table I.—Mean Monthly Results, &c.—*continued.*

ABERDEEN.

MONTHS.	THERMOMETER.					BAROMETER.					PRESSURE.	
	Means.	Extremes.				Means.	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	°	D. H.	°	D. H.	°	in.	D. H.	in.	D. H.	in.	in.	in.
January -	40·3	14th, 4 p.m.	54·6	25th, 5 a.m.	28·8	29·352	31st, 11 a.m.	30·259	20th, 4 a.m.	**28·051**	·208	29·144
February -	36·0	16th, 3 p.m.	48·3	25th, 3 a.m.	**12·5**	30·000	18th, Noon and 8 p.m.	**·493**	26th, 2 and 3 p.m.	·773	·191	·809
March -	39·3	4th, 3 p.m.	50·7	1st, 1 a.m.	28·0	29·741	15th, 8 p.m. 20th, 11 p.m.	·206	10th, 7 a.m.	28·917	·206	·535
April -	43·5	30th, 6 p.m.	57·2	24th, 6 a.m.	32·0	·949	9th, Midnt.	·411	6th, 5 a.m.	29·388	·225	·724
May -	45·6	21st, 2 p.m.	62·0	19th, 3 a.m.	32·6	·828	29th, 8 a.m.	·333	3rd, 3 a.m.	·337	·236	·592
June] -	54·9	20th, 2 p.m.	70·9	1st, 1 a.m.	43·3	·798	2nd, 5 a.m.	30·252	10th, 9 a.m.	·202	·333	·465
July -	58·0	21st, 3 p.m.	**77·2**	15th, 4 a.m.	43·4	·702	21st, 9 p.m.	29·980	14th, 6 a.m.	·327	·385	·317
August -	*56·3	6th, 3 p.m.	68·0	11th, 4 a.m.	39·2	·666	25th, 1 p.m.	30·035	29th, 5 a.m.	·224	·356	·310
September -	†50·7	27th, 2 p.m.	64·1	22nd, 2 a.m.	39·6	†·704	21st, Midnt.	·342	17th, 6 p.m.	29·098	·297	·407
October -	44·5	10th, 5 a.m.	56·2	16th, 2 a.m.	32·1	·555	27th, 9 and 10 p.m.	·251	22nd, 4 p.m.	28·547	·233	·322
November -	42·3	28th, 9 p.m.	52·5	5th, 7 a.m.	29·9	·720	16th, 11 a.m.	·441	1st, 10 a.m.	·285	·220	·500
December -	42·1	16th, 3 a.m.	56·2	28th, 9 a.m.	29·7	‡29·863	12th, 1 a.m.	30·451	16th, 7 a.m.	28·878	.222	29·641
Annual -	46·1	—	—	—	—	29·740	—	—	—	—	·259	29·481

* 29 days. † 28 days. ‡ 30 days.

FALMOUTH.

MONTHS.	THERMOMETER.					BAROMETER.					PRESSURE.	
	Means.	Extremes.				Means.	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	°	D. H.	°	D. H.	°	in.	D. H.	in.	D. H.	in.	in.	in.
January -	45·7	4th, 3 p.m.	53·8	20th, 1 a.m.	33·4	29·478	13th, 11 p.m.	30·014	20th, 6 and 7 a.m.	**28·314**	·260	29·218
February -	40·9	25th, Noon.	52·5	3rd, 4 p.m.	**32·7**	*·854	18th, 11 a.m. and Noon.	**30·472**	2nd, Noon.	·631	·202	·652
March -	†44·8	3rd, 2 p.m.	54·1	13th, 6 a.m.	33·7	·560	26th, 11 a.m.	29·892	1st, 3 p.m.	28·819	·247	·313
April -	‡48·1	17th, 2 p.m.	§60·4?	26th, 4 a.m.	§35·0?	·834	3rd, 11 p.m.	30·147	17th, 4 a.m.	29·306	·258	·576
May -	52·2	29th, 2 p.m.	66·2	6th, 4 a.m.	43·0	·788	29th, 8 a.m.	·173	5th, 2 p.m.	·121	·303	·485
June -	58·3	21st, 4 p.m.	70·5	16th, 4 a.m.	49·7	·792	26th, 8 a.m.	·114	12th, 3 a.m.	·237	·384	·408
July -	60·5	22nd, 1 p.m.	**76·0**	15th, 6 a.m.	51·0	·763	19th, 9 and 10 a.m.	·055	13th, 11 a.m. and Noon.	·261	·417	·346
August -	†60·6	7th, 4 p.m.	73·5	29th, 6 a.m.	50·9	†·770	2nd, 11 a.m.	·074	28th, 7 a.m.	29·293	·427	·343
September -	‖56·1	20th, Noon.	64·7	29th, 5 a.m.	46·3	·783	22nd, 11 a.m.	·292	15th, 6 a.m.	28·984	·374	·409
October -	51·1	1st, 1 p.m.	66·3	28th, 5 a.m.	37·4	·683	27th, Midnt. & 28th, 1 a.m.	·307	23rd, Noon.	·795	·320	·363
November -	48·0	24th, Noon.	56·0	12th, 3 a.m.	37·5	29·651	30th, Midnt.	·290	5th, 4 p.m.	28·923	·283	·368
December -	47·5	16th, 1 p.m.	54·8	28th, 6 a.m.	37·6	30·075	3rd, 10 a.m.	30·429	31st, 1 a.m.	29·273	·282	29·793
Annual -	51·2	—	—	—	—	29·753	--	—	—	—	·313	29·440

* 26 days. † 29 days. ‡ 26 days, thermometer accidentally broken.

§ From the 1st to the 7th there are only hourly readings of standard thermometer, and only from 6 a.m. to midnight each day. ‖ 28 days.

Table I.—Mean Monthly Results, &c.—*continued.*

STONYHURST.

MONTHS.	THERMOMETER.					BAROMETER.					PRESSURE.	
	Means.	Extremes.				Means.	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	°	D. H.	°	D. H.	°	in.	D. H.	in.	D. H.	in.	in.	in.
January	40·3	13th, 3 p.m.	51·9	21st, 4 a.m.	18·6	*29·250	31st, 11 a.m.	29·804	20th, 10 a.m.	**†27·985?**	·214	29·036
February	35·1	26th, 2 p.m.	43·8	24th, 5 a.m.	**12·7**	·717	18th, 11 a.m.	**30·339**	26th, 11 a.m.	28·380	·179	·538
March	40·2	27th, 3 p.m.	59·3	14th, 3 a.m.	29·3	·410	25th, 11 p.m.	29·827	11th, 9 and 10 a.m.	28·618	·207	·203
April	45·2	15th, 1 p.m.	66·6	26th, 3 a.m.	29·3	·647	10th, 9 a.m.	30·043	17th, Noon	29·201	·218	·429
May	48·2	31st, 1 p.m.	65·8	20th 4 a.m.	33·1	·556	29th, 6 a.m.	30·014	5th, 3 p.m.	28·900	·257	·299
June	56·9	29th, 2 p.m.	71·3	2nd, 3 a.m.	42·9	·560	7th, 9 a.m.	29·896	12th, 5 p.m.	29·161	·362	·198
July	60·0	22nd ?	**‡88·1**?	29th, 4 a.m.	46·3	·498	21st, 7 a.m.	·786	13th, 8 p.m.	29·047	·403	·095
August	57·8	7th, 6 p.m.	70·3	31st, 6 a.m.	46·4	·471	2nd, 2 p.m.	29·761	28th, 3 p.m.	28·961	·392	·079
September	52·5	27th, 3 p.m.	68·8	29th, 6 a.m.	33·7	·516	22nd, 9 a.m.	30·158	15th, 7 a.m.	·822	·314	·202
October	46·0	3rd, 3 p.m.	66·7	27th, 7 a.m.	29·4	·398	27th, Midnt.	·119	23rd, 1 p.m.	·473	·269	·129
November	42·8	26th, 6 p.m.	53·4	16th, 4 a.m.	29·4	·469	16th, 10 and 11 p.m.	·164	1st, 5 a.m.	·470	·230	·239
December	42·4	16th, 6 a.m.	52·2	12th, 7 a.m.	25·5	29·778	12th, 11 a.m.	30·240	31st, 1 a.m.	28·885	·239	29·539
Annual	47·3	—	—	—	—	29·523	—	—	—	—	·274	29·249

* 30 days. † Lowest reading of standard barometer recorded, light cut off from barograph. Minimum probably lower.
‡ Corrected reading of maximum thermometer, curve being indistinct.

KEW.

	°	D. H.	°	D. H.	°	in.	D. H.	in.	D. H.	in.	in.	in.
January	42·7	10th, 2 p.m.	53·2	25th, 5 p.m.	25·7	29·722	14th, 10 a.m.	30·189	20th, 1 a.m.	**28·437**	·231	29·491
February	35·5	26th, 4 p.m.	49·7	2nd, 4 a.m.	25·5	30·060	18th, 11 a.m.	**·783**	26th, 2 p.m.	28·820	·172	·888
March	42·3	29th, 3 p.m. & 30th 3 p.m.	62·5	14th, 4 a.m.	28·3	29·781	26th, 10 a.m.	·174	1st, 4 and 5 p.m.	29·098	·226	·555
April	46·4	16th, 2 p.m.	72·8	26th, 6 a.m.	30·0	·977	9th, 11 p.m.	·311	17th, 2 p.m.	·488	·229	·748
May	51·2	26th, 2 p.m.	69·8	20th, 4 a.m.	33·7	·944	29th, 8 a.m.	·394	5th, 11 p.m.	·312	·268	·676
June	59·3	29th, 1 p.m.	78·2	7th, 2 a.m.	43·0	·939	21st, 8 a.m.	·240	12th, 5 p.m.	·476	·374	·565
July	67·3	22nd, 2 p.m.	**86·5**	19th, 4 a.m.	47·9	·934	21st, 8 a.m.	·173	13th, 7 p.m.	·346	·418	·516
August	62·4	8th, 1 p.m.	82·5	29th, 5 a.m.	49·4	·908	17th, 9 a.m.	·181	28th, 3 p.m.	·445	·414	·494
September	54·4	27th, 2 p.m.	70·2	24th, 6 a.m.	39·2	·940	22nd, 10 a.m.	·517	15th, 1 p.m.	29·204	·333	·607
October	47·8	3rd, Noon	71·7	30th, 8 a.m.	26·4	·843	28th, 7 and 8 a.m.	·507	23rd, 1 p.m.	28·918	·286	·557
November	44·9	23rd, 8 a.m.	57·8	13th, 6 a.m.	27·0	29·854	16th, Midnt.	·458	1st, 7 a.m.	29·071	·252	29·602
December	40·9	16th, 11 a.m.	56·1	10th, 10 a.m.	**20·5**	30·261	13th, 10 a.m.	30·635	31st, 7 a.m.	29·490	·230	30·031
Annual	49·3	—	—	—	—	29·930	—	—	—	—	·286	29·644

TABLE II.—Part 1.

Five-Day Means of the Dry and Wet Bulb Thermometers and Barometer, from the continuous Records at the Seven British Observatories, January to June 1873.

Five-Day Periods.	Thermometers.														Barometer.							Five-Day Periods.
	Valencia. 12 ft.		Armagh. 4 ft.		Glasgow. 7 ft.		Aberdeen. 41 ft.		Falmouth. 11 ft.		Stonyhurst. 7 ft.		Kew. 10 ft.		Valencia. 23 ft.	Armagh. 207 ft.	Glasgow. 184 ft.	Aberdeen. 88 ft.	Falmouth. 211 ft.	Stonyhurst. 361 ft.	Kew. 34 ft.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.								
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	In.	In.	In.	In.	In.	In.	In.	
Jan. 1–5	45·8	42·7	40·2	38·5	41·2	39·3	40·7	38·6	47·2	44·9	41·9	40·2	45·5	43·5	29·416	29·143	29·102	29·169	29·494	29·117	29·717	Jan. 1–5
,, 6–10	49·3	47·1	46·9	45·1	46·5	44·6	45·0	43·1	50·8	48·7	47·6	45·5	48·5	46·2	·364	·206	*·167	·314	·509	·228	·840	,, 6–10
,, 11–15	48·0	46·5	46·0	44·7	45·1	43·5	44·7	41·7	48·6	47·3	46·8	45·0	48·7	46·7	·790	29·504	·435	29·448	·803	·422	·992	,, 11–15
,, 16–20	42·1	39·2	36·1	35·0	37·0	35·7	37·5	35·5	44·1	41·8	39·2	37·4	43·8	41·8	·206	28·890	*·320	28·918	·182	(29·015)	·362	,, 16–20
,, 21–25	43·3	40·7	35·4	34·3	34·0	32·8	35·6	33·6	42·5	40·1	32·8	31·6	36·8	35·3	·341	29·119	·098	29·168	·163	28·952	29·341	,, 21–25
,, 26–30	45·1	42·6	40·5	39·0	36·6	35·0	38·9	37·0	42·4	40·1	34·4	32·8	34·2	32·4	·751	·649	·752	29·918	·653	29·611	30·010	,, 26–30
Feb. 31–4	37·8	35·4	33·4	*32·5	33·0	30·4	34·6	32·5	38·8	36·5	32·5	‡32·6	32·9	31·4	29·869	29·795	29·871	30·047	·572	·570	29·814	Feb. 31–4
,, 5–9	39·9	36·6	33·4	32·5	(33·4)	(32·4)	35·7	34·3	38·7	35·8	36·4	34·7	34·7	33·0	30·504	30·096	§30·230	·177	29·927	·840	30·110	,, 5–9
,, 10–14	43·4	40·4	39·4	37·7	(37·7)	(35·3)	39·2	36·5	40·2	36·8	36·9	34·4	37·2	34·8	·500	·223	*·065	·178	*30·133	29·912	·207	,, 10–14
,, 15–19	45·4	42·3	41·4	38·7	41·0	38·5	39·4	36·7	42·8	39·6	38·3	36·4	36·4	34·1	·546	30·365	30·313	30·334	30·397	30·208	·632	,, 15–19
,, 20–24	40·8	37·8	34·5	32·9	35·2	(34·7)	33·4	†39·9	40·5	38·8	31·3	30·2	32·9	31·5	30·033	29·859	*29·959	29·863	29·862	29·658	30·068	,, 20–24
,, 25–1	45·6	43·5	37·4	36·0	33·2	31·2	34·0	32·3	45·7	43·5	35·2	33·2	39·7	37·7	29·257	·087	·156	·300	·157	28·956	29·381	,, 25–1
Mar. 2–6	47·7	45·9	43·7	42·0	40·7	39·0	40·4	38·2	48·0	46·3	41·5	40·2	44·3	42·4	·782	·516	·487	·581	·648	29·384	·816	Mar. 2–6
,, 7–11	43·1	40·1	39·0	37·4	38·9	37·1	39·8	37·7	44·1	41·4	38·4	37·1	42·3	40·0	·441	·085	·025	·133	·312	28·928	·463	,, 7–11
,, 12–16	40·3	37·1	36·0	33·8	36·1	33·6	36·2	34·0	40·6	37·9	34·6	32·5	37·4	35·4	29·700	·574	·612	29·769	·389	29·355	·651	,, 12–16
,, 17–21	42·7	39·2	38·7	36·6	38·5	35·6	39·0	36·5	42·1	38·9	38·4	36·2	39·5	37·5	30·078	·914	·926	30·059	·720	·642	29·900	,, 17–21
,, 22–26	45·1	42·6	42·6	40·4	40·3	39·1	40·0	39·1	46·3	44·0	41·9	39·7	43·6	41·2	29·939	·856	·923	30·090	·756	·719	30·040	,, 22–26
,, 27–31	47·4	45·3	48·9	46·6	43·0	41·2	41·1	40·6	*47·9	46·3	47·3	43·8	47·3	44·7	29·762	·616	·720	29·907	·651	·542	29·911	,, 27–31
Apr. 1–5	48·6	46·7	45·2	42·9	44·7	41·4	44·4	40·9	(48·3)	(46·4)	44·7	42·4	48·2	44·6	30·162	29·830	·733	29·775	·955	·628	30·057	Apr. 1–5
,, 6–10	47·2	43·1	43·7	40·5	45·2	40·6	43·5	41·2	‖44·1	‖40·0	42·4	38·5	42·4	38·7	30·248	30·012	·952	30·037	·892	·710	29·993	,, 6–10
,, 11–15	49·7	47·1	48·1	*45·3	46·1	43·3	44·1	42·5	48·7	46·2	47·7	43·9	47·7	44·3	29·764	29·690	·743	29·914	·660	·560	·916	,, 11–15
,, 16–20	(53·5)	(50·4)	49·5	46·4	46·7	42·5	42·8	41·4	51·9	48·6	49·9	44·5	52·7	47·7	29·824	·712	·772	29·957	·601	·521	29·780	,, 16–20
,, 21–25	49·1	43·8	43·1	39·1	41·9	37·1	39·7	36·4	45·3	41·0	40·8	36·3	41·9	37·7	30·132	29·977	·962	30·073	29·837	·722	30·013	,, 21–25
,, 26–30	49·7	46·1	47·8	44·8	48·3	43·7	46·5	42·6	48·2	44·0	45·6	42·2	45·3	41·5	30·392	30·046	·903	29·937	30·060	·741	30·104	,, 26–30
May 1–5	50·3	46·8	47·4	43·7	46·0	42·6	45·8	42·5	50·7	47·4	47·1	44·1	50·8	46·3	29·894	29·585	·483	·565	29·673	·356	29·776	May 1–5
,, 6–10	50·4	47·1	46·8	44·0	46·0	43·3	45·1	43·7	50·5	47·2	47·3	44·6	49·7	46·0	29·775	·484	·458	29·600	·620	·310	29·737	,, 6–10
,, 11–15	56·3	51·8	50·6	46·9	48·0	43·4	44·5	40·8	51·8	48·7	47·9	44·5	51·8	46·6	30·073	·943	·924	30·036	·922	·756	30·132	,, 11–15
,, 16–20	50·7	47·2	44·8	42·6	41·8	38·9	41·4	37·8	49·6	46·5	44·1	40·5	47·4	43·5	29·863	·730	·761	29·905	·647	·559	29·872	,, 16–20
,, 21–25	53·4	50·6	51·4	47·9	49·6	45·7	50·5	45·6	53·4	50·5	49·7	46·7	53·5	48·7	30·016	·744	·671	29·732	·883	·572	30·015	,, 21–25
,, 26–30	54·1	51·3	54·6	50·7	51·9	47·0	46·7	43·8	56·5	52·1	52·3	48·0	53·5	49·1	·145	·904	·915	30·070	·950	·740	30·106	,, 26–30
June 31–4	58·1	54·5	56·9	53·1	55·7	51·1	51·4	48·9	55·5	51·6	54·9	50·4	56·1	51·3	·052	·887	·919	30·087	·767	·666	29·923	June 31–4
,, 5–9	57·0	53·2	55·9	51·8	56·9	52·1	54·9	50·3	58·7	54·3	55·6	52·0	56·6	52·9	30·171	·943	·870	29·960	·899	·706	30·046	,, 5–9
,, 10–14	54·1	50·5	53·6	50·7	54·0	50·4	54·1	50·5	55·9	52·9	54·9	51·5	56·8	52·6	29·643	·396	·360	·469	·464	·245	29·656	,, 10–14
,, 15–19	56·5	54·0	57·3	53·6	56·3	52·0	53·4	51·2	58·5	55·3	57·9	53·7	60·1	55·6	29·835	·681	·700	·831	·775	·564	29·958	,, 15–19
,, 20–24	58·3	56·8	50·1	56·1	57·9	54·2	59·6	54·3	60·5	57·7	59·7	56·5	63·2	58·3	30·052	·758	·713	·759	·964	·654	30·096	,, 20–24
,, 25–29	57·7	55·5	57·4	54·3	55·0	52·5	54·1	50·9	59·8	56·4	56·8	54·3	61·9	56·6	30·082	29·759	29·684	29·754	29·922	29·589	30·020	,, 25–29

Note.—The heights in the headings of the temperature columns are those of the thermometer bulbs above the ground. Those in the headings of the pressure columns are those of the barometer cisterns above mean sea level.

Means which are enclosed in brackets are for four days only, owing to various causes, such as clock stopping, defective photography, &c. &c.

* Mean for three days only. † Mean for two days only, 20th and 21st. ‖ Mean for two days only, 9th and 10th. ‡ Mean for one day only, 31st. § Mean for one day only, 8th.

TABLE II.—PART 2.

FIVE-DAY MEANS of the DRY and WET BULB THERMOMETERS and BAROMETER, from the continuous Records at the Seven BRITISH OBSERVATORIES, July to December 1873.

Five-Day Periods.	THERMOMETERS.														BAROMETER.							Five-Day Periods.
	Valencia. 12 ft.		Armagh. 4 ft.		Glasgow. 7 ft.		Aberdeen. 41 ft.		Falmouth. 11 ft.		Stonyhurst. 7 ft.		Kew. 10 ft.		Valencia. 23 ft.	Armagh. 207 ft.	Glasgow. 184 ft.	Aberdeen. 88 ft.	Falmouth. 211 ft.	Stonyhurst. 361 ft.	Kew. 34 ft.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.								
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	In.	In.	In.	In.	In.	In.	In.	
June 30–4	57·9	55·0	58·5	54·9	57·1	53·6	55·3	52·7	59·7	56·5	58·5	55·3	62·2	57·9	29·794	29·574	29·587	29·721	29·723	29·467	29·868	June 30–4
July 5–9	58·1	55·4	57·5	54·5	57·7	54·0	59·2	54·7	60·4	56·8	58·7	54·7	62·9	57·6	·799	·597	·618	·730	·787	·543	·981	July 5–9
,, 10–14	55·3	52·5	54·8	52·5	55·6	52·1	55·8	52·4	58·3	54·6	56·9	53·3	60·7	55·8	·672	·405	·380	·488	·559	·281	·731	,, 10–14
,, 15–19	58·3	55·5	57·1	54·3	55·2	52·1	54·7	51·5	60·0	56·5	56·7	53·4	60·8	55·8	·959	·671	·613	·690	·868	·527	29·989	,, 15–19
,, 20–24	62·1	59·3	63·9	61·1	64·9	61·0	63·6	60·0	63·0	59·9	68·1	63·4	69·7	63·6	·915	·739	·739	·841	·847	·634	30·033	,, 20–24
,, 25–29	58·2	55·9	58·6	56·3	58·1	55·4	57·9	55·9	59·9	56·2	60·4	56·9	64·0	58·3	29·888	·654	·656	·776	·775	·528	29·951	,, 25–29
Aug. 30–3	60·0	57·0	58·5	56·0	57·4	54·5	59·2	54·5	62·4	58·3	59·2	55·8	63·6	58·3	30·046	·761	·693	·743	·937	·619	30·065	Aug. 30–3
,, 4–8	60·5	58·6	59·6	57·1	57·4	54·3	58·3	53·6	63·1	60·4	59·6	57·4	66·8	61·7	29·984	·679	·608	·651	·857	·536	29·978	,, 4–8
,, 9–13	59·0	56·2	56·7	54·7	54·5	51·6	54·5	50·9	61·1	57·1	56·5	53·7	61·5	56·1	30·048	·711	·619	·674	·901	·539	·978	,, 9–13
,, 14–18	58·4	55·5	57·0	54·6	56·6	53·5	(58·0)	(53·7)	60·7	57·9	57·2	54·0	62·9	57·7	29·880	·629	·608	·695	·809	·541	·987	,, 14–18
,, 19–23	57·4	54·4	56·0	53·6	*55·7	*53·2	(53·5)	(51·5)	58·9	56·5	57·3	54·5	60·3	56·4	·684	·485	·494	·630	·594	·350	·779	,, 19–23
,, 24–28	58·3	55·0	57·4	55·5	(57·3)	(55·0	56·1	54·8	58·2	56·2	60·0	56·9	63·1	59·1	·645	†·535	·539	·717	(·537)	·358	·781	,, 24–28
Sept. 29–2	56·8	54·4	54·8	53·1	†53·6	†51·4	55·0	52·0	†59·7	†54·7	55·5	53·1	59·4	56·0	29·805	·488	·413	·490	(·663)	·299	·766	Sept. 29–2
,, 3–7	54·7	50·6	51·3	48·8	50·5	46·2	50·3	47·5	†55·1	†52·0	51·1	47·7	53·1	50·0	30·119	·857	·784	·837	·845	·589	·954	,, 3–7
,, 8–12	55·6	52·6	51·6	49·2	51·3	48·7	51·2	48·8	56·7	(53·4)	52·4	49·6	55·6	51·7	29·752	·433	·347	·406	·648	·285	·767	,, 8–12
,, 13–17	54·0	51·9	51·4	49·3	50·9	48·1	50·6	48·4	55·4	53·3	52·1	49·3	54·0	51·0	29·677	·384	·333	·428	29·485	·174	29·616	,, 13–17
,, 18–22	54·7	52·1	51·0	48·4	50·7	47·5	50·1	46·3	56·4	53·9	52·7	49·5	55·3	51·4	30·146	·888	·784	29·801	30·012	·709	30·163	,, 18–22
,, 23–27	57·0	54·1	55·1	52·3	54·8	51·4	†52·6	†50·1	56·4	54·6	55·1	51·7	53·3	50·2	30·026	·911	·933	†30·177	29·940	·808	·196	,, 23–27
Oct. 28–2	55·9	53·5	53·0	51·2	48·1	46·3	47·8	44·9	56·7	55·0	52·1	50·0	54·5	52·2	29·881	·738	·742	29·874	·795	·612	30·016	Oct. 28–2
,, 3–7	52·5	50·2	49·6	47·9	47·7	45·4	47·2	44·3	56·0	53·7	52·3	50·0	55·6	53·3	·901	·645	·605	·695	·737	·483	29·901	,, 3–7
,, 8–12	52·2	50·0	47·7	45·8	46·4	44·4	46·6	(43·1)	52·9	51·4	48·6	46·8	51·8	49·9	·685	·363	·281	·332	·612	·248	·757	,, 8–12
,, 13–17	49·7	47·3	45·8	44·1	44·9	43·0	44·0	41·5	50·5	48·4	44·6	43·0	45·6	43·7	·902	·658	·589	·649	·731	·486	·917	,, 13–17
,, 18–22	51·2	(48·8)	45·6	43·7	44·3	42·0	43·3	40·1	52·2	49·7	45·6	43·6	50·0	47·4	·892	·508	·354	·362	·730	·315	·817	,, 18–22
,, 23–27	44·1	(41·0)	36·7	35·4	37·5	35·6	39·5	36·6	45·0	42·1	38·1	36·0	41·8	40·2	·686	·463	·435	·503	·455	·260	·619	,, 23–27
Nov. 28–1	48·5	45·7	43·0	41·3	44·1	42·2	44·0	42·0	46·1	43·6	41·4	39·8	37·9	36·7	·752	·478	·423	·488	·682	·391	·875	Nov. 28–1
,, 2–6	45·6	43·1	40·4	39·2	41·2	39·3	39·0	37·9	46·7	44·6	41·4	40·2	44·5	43·2	29·370	·169	29·190	29·344	·132	·007	·394	,, 2–6
,, 7–11	45·9	43·2	42·3	40·1	42·4	39·3	43·4	(41·0)	47·2	45·3	43·3	40·5	45·2	43·4	30·045	29·965	30·029	30·206	·689	·719	29·963	,, 7–11
,, 12–16	44·6	42·0	40·1	38·7	37·6	36·0	42·1	39·3	46·1	43·8	39·6	37·0	40·4	38·2	·070	30·018	30·075	·225	·818	·828	30·120	,, 12–16
,, 17–21	46·5	44·7	40·9	39·4	37·9	36·9	42·4	40·3	46·6	44·2	40·6	38·9	42·9	41·1	30·139	29·976	29·961	30·020	·944	·809	30·180	,, 17–21
,, 22–26	50·7	49·3	47·3	45·3	46·3	43·6	43·6	(41·0)	52·1	51·1	46·7	44·8	49·0	46·6	29·790	·472	·346	29·339	·672	·302	29·792	,, 22–26
Dec. 27–1	51·1	48·2	46·8	45·2	45·8	43·5	44·1	41·5	49·5	47·3	46·1	44·3	46·5	43·8	30·040	29·620	29·477	29·456	29·905	29·421	29·929	Dec. 27–1
,, 2–6	51·1	49·2	46·9	45·1	(45·1)	(43·6)	44·3	41·9	49·0	47·5	46·2	44·8	45·0	43·4	·422	30·187	30·137	30·165	30·318	30·051	30·500	,, 2–6
,, 7–11	48·0	45·6	44·0	42·0	45·3	43·4	45·7	42·9	45·8	43·2	41·6	40·1	32·5	31·8	·435	30·233	(30·188)	30·175	·325	30·112	·568	,, 7–11
,, 12–16	49·7	47·4	44·9	42·8	44·6	42·3	43·8	41·2	46·6	44·7	38·8	37·3	38·7	37·8	·251	29·996	29·937	29·925	30·162	29·871	·351	,, 12–16
,, 17–21	50·1	48·3	45·4	44·0	45·0	43·0	42·4	(40·2)	49·3	48·1	45·9	44·8	47·7	46·2	·042	·711	·598	(·633)	29·951	·574	·068	,, 17–21
,, 22–26	49·1	47·3	44·3	42·7	43·1	41·5	38·0	36·1	48·4	46·8	44·5	42·7	44·2	42·5	30·086	·791	·679	·715	·993	·640	30·146	,, 22–26
,, 27–31	45·6	43·0	39·7	37·8	38·9	37·0	37·7	36·1	45·3	42·8	36·3	34·8	37·3	36·0	29·677	29·451	29·439	29·512	29·650	29·390	29·890	,, 27–31

NOTE.—The heights in the headings of the temperature columns are those of the thermometer bulbs above the ground. Those in the headings of the pressure columns are those of the barometer cisterns above mean sea level.

Means which are enclosed in brackets are for four days only, owing to various causes, such as clock stopping, defective photography, &c., &c.

* Mean for two days only, 19th and 22nd.

† Mean for three days only.

APPENDIX IA.

TABLE I.—MEAN MONTHLY RESULTS from the continuous RECORDS at the SEVEN BRITISH OBSERVATORIES for the Year 1873.—In Degrees (Celsius) and Millimètres.

VALENCIA.

MONTHS.	THERMOMETER.					BAROMETER.					PRESSURE.	
	Means.	Extremes.				Means.	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.	mm.
January -	7·50	13th, 3 p.m.	11·50	19th, 7 and 9 p.m.	−0·33	749·01	29th, 9 a.m.	761·51	20th, 8 a.m.	**718·05**	6·32	742·69
February -	5·50	19th, 2 p.m.	10·28	3rd, 4 a.m.	**−3·78**	65·26	11th, 10 a.m.	***80·48**?	25th, Midnt.	28·33	5·33	59·93
March -	6·94	25th, Noon	13·78	13th, 7 a.m.	1·28	55·92	19th, Midnt.	66·96	1st, 11 a.m.	32·19	5·97	49·95
April -	†9·72	19th, 1 p.m.	18·78	24th, 6 a.m.	2·44	64·20	9th, 10 and 11 a.m.	73·29	14th, 6 a.m.	47·45	6·88	57·32
May -	11·50	13th, 5 p.m.	20·00	19th, 5 a.m.	4·94	61·22	28th, 11 p.m.	71·48	5th, 4 a.m.	44·91	7·87	53·35
June -	13·89	21st, 4 p.m.	20·28	15th, 5 a.m.	7·72	61·10	7th, 1 p.m.	71·99	11th, 3 p.m.	47·79	9·65	51·45
July -	14·72	21st, 3 p.m.	**22·11**	16th, 5 a.m.	9·33	57·72	18th, 10 and 11 p.m.	66·76	5th, 4 p.m.	45·58	10·39	47·33
August -	14·83	24th, 3 p.m.	20·11	28th, 8 and 11 p.m.	10·56	58·71	9th, 8 p.m.	68·26	27th, 11 p.m.	41·49	10·36	48·35
September -	12·83	24th, 2 p.m.	17·44	29th, 1 a.m.	5·56	60·54	22nd, 10 a.m.	75·19	14th, Midnt.	41·75	8·84	51·70
October -	10·28	1st, 1 p.m.	16·94	27th, 7 a.m.	1·94	57·46	27th, 10 p.m.	74·66	23rd, 1 p.m.	34·43	7·98	49·48
November -	8·39	26th, 9 a.m.	12·78	2nd, 7 a.m.	1·67	58·61	16th, 10 and 11 p.m.	74·18	1st, 11 p.m. & Midnt.	36·36	6·78	51·83
December -	9·44	16th, 10 a.m.	12·56	28th, 2 a.m.	1·33	766·03	13th, 11 a.m.	776·56	30th, 3 p.m.	740·07	7·52	758·51
Annual -	10·46	—	—	—	—	759·65	—	—	—	—	7·82	751·82

* Highest reading registered, no trace for next hour.

† 29 days.

ARMAGH.

	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.	mm.
January -	4·89	13th, 8 p.m.	11·11	20th, 8 p.m.	−3·50	743·49	31st, 2 a.m.	759·73	20th, 1 a.m.	**712·20**	5·66	737·83
February -	2·50	20th, 4 p.m.	8·78	24th, 7 a.m.	**−6·56**	60·49	18th, 10 a.m.	**74·46**	26th, 5 a.m.	25·31	4·83	55·66
March -	5·22	26th, 2 p.m.	14·17	23rd, 4 a.m.	−1·22	51·11	20th, Midnt.	63·26	1st, 2 and 3 p.m.	31·13	5·56	45·55
April -	7·89	21st, 2 p.m.	16·89	25th, 5 a.m.	−0·72	58·88	9th, 10 p.m.	68·79	16th, 4 and 6 p.m.	46·67	6·20	52·68
May -	9·72	30th, 2 p.m.	19·94	7th, 5 a.m.	0·89	55·38	29th, 8 a.m.	67·32	6th, 3 a.m.	40·09	6·98	48·40
June -	13·83	21st, 4 p.m.	21·89	16th, 4 a.m.	7·00	55·10	7th, 9 a.m.	66·33	10th, 4 a.m.	42·12	9·14	45·96
July -	14·72	22nd, 3 p.m.	**23·56**	14th, 5 a.m.	7·89	51·86	16th, Noon	58·83	5th, 10 p.m.	41·05	10·39	41·47
August -	14·00	7th, 3 p.m.	20·94	29th, 6 a.m.	8·11	*52·46	1st, 10 p.m.	60·36	28th, 3 a.m.	†40·34?	10·24	42·22
September -	11·00	27th, 2 p.m.	19·44	22nd, 5 a.m.	3·11	54·31	22nd, 9 a.m.	71·23	15th, 1 a.m.	37·96	8·20	46·11
October -	7·72	2nd, Noon	17·33	24th, 7 a.m.	−1·17	50·59	27th, 11 p.m.	69·71	31st, Midnt.	26·35	6·86	43·73
November -	5·94	23rd, 1 a.m.	12·78	15th, Midnt.	0·22	53·30	16th, Noon	71·48	1st, 2 a.m.	22·70	6·02	47·28
December -	6·89	16th, 4 a.m.	12·78	28th, 8 a.m.	−1·17	759·45	11th, 11 a.m.	771·74	30th, 8 p.m.	733·41	6·40	553·05
Annual -	8·69	—	—	—	—	753·87	—	—	—	—	7·21	746·66

* 29 days.

† Lowest reading recorded, trace faint for 10 hours.

Table I.—Mean Monthly Results, &c.—*continued.*

GLASGOW.

Months.	Thermometer.					Barometer.					Pressure.	
	Means.	Extremes.				Mean s	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.	mm.
January -	4·44	13th, 9 p.m.	10·78	25th, 1 a.m.	−3·56	*745·42	31st, 11 a.m.	762·64	19th, 8 p.m.	†**711·78**?	5·46	739·96
February -	‡2·06	20th, Noon	8·78	24th, 6 a.m.	**−5·33**	§59·37	18th, 11 a.m.	**73·72**	26th, 2 p.m.	27·09	4·42	54·95
March -	4·11	28th, 4 p.m.	12·83	1st, 1 a.m.	—1·89	51·77	20th, Midnt., & 21st, 1 a.m.	63·89	11th, 5 a.m.	29·35	5·16	46·61
April -	7·50	21st, 4 p.m.	19·44	24th, 6 a.m.	0·11	58·02	9th, 10 p.m.	69·20	6th, 8 a.m.	47·10	5·54	52·48
May -	8·56	31st, 3 p.m.	18·94	4th, 5 a.m.	0·56	54·65	29th, 8 a.m.	66·94	5th, Midnt., & 6th, 1 a.m.	38·75	6·12	48·53
June -	13·33	5th, 2 p.m.	20·78	1st, 3 a.m.	5·56	54·31	2nd, 5 a.m.	64·47	10th, 7 a.m.	41·49	8·76	45·55
July -	14·56	22nd, ?	‖**27·44**?	5th, 4 a.m.	6·72	51·65	21st, 10 a.m.	58·91	6th, 2 a.m.	42·53	9·83	41·82
August -	¶13·44	7th, 3 p.m.	20·33	31st, 6 a.m.	5·28	51·24	24th, 11 p.m.	58·23	28th, 3 a.m.	40·29	9·40	41·84
September -	10·78	27th, 1 p.m.	20·39	7th, 6 a.m.	1·89	52·87	22nd, 8 a.m.	69·20	15th, 3 a.m.	38·21	7·59	45·28
October -	7·06	10th, 4 a.m.	13·00	27th, 8 a.m.	−2·22	49·01	27th, 10 p.m.	67·62	22nd, 5 and 6 p.m.	25·00	6·38	42·63
November -	5·33	23rd, 1 a.m.	11·50	16th, 3 a.m.	−3·33	52·67	16th, 11 p.m.	71·46	1st, 6 and 7 a.m.	18·00	5·59	47·08
December -	**6·56	16th, 3 a.m.	12·39	28th, 7 a.m.	−1·50	**757·44	11th, Midnt.	771·61	30th 11 p.m.	732·86	6·20	751·24
Annual -	8·14	—	—	—	—	753·20	—	—	—	—	6·70	746·50

* 27 days. † Lowest reading of standard barometer recorded; light cut off from barograph; minimum probably lower. ‡ 26 days.
§ 20 days. ¶ 25 days. ** 30 days. ‖ Reading of Phillips' maximum thermometer, curve indistinct for 8 hours.

ABERDEEN.

	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.	mm.
January -	4·61	14th, 4 p.m.	12·56	25th, 5 a.m.	−1·78	745·53	31st, 11 a.m.	768·57	20th, 4 a.m.	**712·49**	5·28	740·25
February -	2·22	16th, 3 p.m.	9·06	25th, 3 a.m.	−10·83	61·99	18th, Noon & 8 p.m.	**74·51**	26th, 2 and 3 p.m.	30·82	4·85	57·14
March -	4·06	4th, 3 p.m.	10·39	1st, 1 a.m.	−2·22	55·41	15th, 8 p.m. 20th, 11 p.m.	67·22	10th, 7 a.m.	34·48	5·23	50·18
April -	6·39	30th, 6 p.m.	14·00	24th, 6 a.m.	0·00	60·69	9th, Midnt.	72·43	6th, 5 a.m.	46·44	5·71	54·98
May -	7·56	21st, 2 p.m.	16·67	19th, 3 a.m.	0·33	57·61	29th, 8 a.m.	70·45	3rd, 3 a.m.	45·15	5·99	51·62
June -	12·72	20th, 2 p.m.	21·61	1st, 1 a.m.	6·28	56·85	2nd, 5 a.m.	68·39	10th, 9 a.m.	41·72	8·46	48·39
July -	14·44	21st, 3 p.m.	**25·11**	15th, 4 a.m.	6·33	54·42	21st, 9 p.m.	61·48	14th, 6 a.m.	44·89	9·78	44·64
August -	*13·50	6th, 3 p.m.	20·00	11th, 4 a.m.	4·00	53·50	25th, 1 p.m.	62·88	29th, 5 a.m.	42·27	9·04	44·46
September -	†10·39	27th, 2 p.m.	17·83	22nd, 2 a.m.	4·22	†54·47	21st, Midnt.	70·67	17th, 6 p.m.	39·07	7·54	46·93
October -	6·94	10th, 5 a.m.	13·44	16th, 2 a.m.	0·06	50·69	27th, 9 and 10 p.m.	68·37	22nd, 4 p.m.	25·08	5·92	44·77
November -	5·72	28th, 9 p.m.	11·39	5th, 7 a.m.	−1·17	54·87	16th, 11 a.m.	73·19	1st, 10 a.m.	18·43	5·59	49·28
December -	5·61	16th, 3 a.m.	13·44	28th, 9 a.m.	−1·28	‡758·51	12th, 1 a.m.	773·45	16th, 7 a.m.	733·49	5·64	752·87
Annual -	7·85	—	—	—	—	755·38	—	—	—	—	6·59	748·79

* 29 days. † 28 days. ‡ 30 days.

Table I.—Mean Monthly Results, &c.—*continued.*

FALMOUTH.

Months.	Thermometer.					Barometer.					Pressure.	
	Means.	Extremes.				Means.	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.	mm.
January -	7·61	4th, 3 p.m.	12·11	20th, 1 a.m.	0·78	748·72	13th, 11 p.m.	762·34	20th, 6 and 7 a.m.	**719·16**	6·60	742·12
February -	4·94	25th, Noon	11·39	3rd, 4 p.m.	**0·39**	*58·28	18th, 11 a.m. and Noon.	**73·97**	2nd, Noon	27·22	5·13	53·15
March -	†7·11	3rd, 2 p.m.	12·28	13th, 6 a.m.	0·94	50·81	26th, 11 a.m.	59·24	1st, 3 p.m.	31·99	6·27	44·54
April -	‡8·94	17th, 2 p.m.	§15·78?	26th, 4 a.m.	§1·67?	57·77	3rd, 11 p.m.	65·72	17th, 4 a.m.	44·36	6·55	51·22
May -	11·22	29th, 2 p.m.	19·00	6th, 4 a.m.	6·11	56·60	29th, 8 a.m.	66·38	5th, 2 p.m.	39·66	7·70	48·90
June -	14·61	21st, 4 p.m.	21·39	16th, 4 a.m.	9·83	56·70	26th, 8 a.m.	64·88	12th, 3 a.m.	42·61	9·75	46·95
July -	15·83	22nd, 1 p.m.	**24·44**	15th, 6 a.m.	10·56	55·97	19th, 9 and 10 a.m.	63·39	13th, 11 a.m. and Noon.	43·22	10·59	45·38
August -	†15·89	7th, 4 p.m.	23·06	29th, 6 a.m.	10·50	†56·14	2nd, 11 a.m.	63·86	28th, 7 a.m.	44·03	10·85	45·29
September -	‖13·39	20th, Noon	18·17	29th, 5 a.m.	7·94	56·48	22nd, 11 a.m.	69·40	15th, 6 a.m.	36·18	9·50	46·98
October -	10·61	1st, 1 p.m.	19·06	28th, 5 a.m.	3·00	53·94	27th Midnt., & 28th, 1 a.m.	69·79	23rd, Noon	31·38	8·13	45·81
November -	8·89	24th, Noon	13·33	12th, 3 a.m.	3·06	53·13	30th, Midnt.	69·35	5th, 4 p.m.	34·63	7·19	45·94
December -	8·61	16th, 1 p.m.	12·67	28th, 6 a.m.	3·11	763·89	3rd, 10 a.m.	772·88	31st, 1 a.m.	743·52	7·16	756·73
Annual -	10·64	—	—	—	—	755·70	—	—	—	—	7·95	747·75

* 26 days. † 29 days. ‡ 26 days, thermometer accidentally broken.

§ From the 1st to the 7th there are only hourly readings of standard thermometer, and only from 6 a.m. to midnight each day. ‖ 28 days.

STONYHURST.

	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.	mm.
January -	4·61	13th, 3 p.m.	11·06	21st, 4 a.m.	−7·44	*742·94	31st, 11 am.	757·01	20th, 10 a.m.	†**710·81**?	544·	737·50
February -	1·72	26th, 2 p.m.	6·56	24th, 5 a.m.	**−10·72**	54·80	18th, 11 a.m.	**70·60**	26th, 11 a.m.	20·84	4·55	50·25
March -	4·56	27th, 3 p.m.	15·17	14th, 3 a.m.	−1·50	47·00	25th, 11 p.m.	57·59	11th, 9 and 10 a.m.	26·89	5·26	41·74
April -	7·33	15th, 1 p.m.	19·22	26th, 3 a.m.	−1·50	53·02	10th, 9 a.m.	63·08	17th, Noon	41·70	5·54	47·48
May -	9·00	31st, 1 p.m.	18·78	20th, 4 a.m.	0·61	50·71	29th, 6 a.m.	62·34	5th, 3 p.m.	34·05	6·53	44·18
June -	13·83	29th, 2 p.m.	21·83	2nd, 3 a.m.	6·06	50·81	7th, 9 a.m.	59·34	12th, 5 p.m.	40·68	9·19	41·62
July -	15·56	22nd, ?	‡**31·17**?	29th, 4 a.m.	7·94	49·23	21st, 7 a.m.	56·55	13th, 8 p.m.	37·78	10·24	38·99
August -	14·33	7th, 6 p.m.	21·28	31st, 6 a.m.	8·00	48·55	2nd, 2 p.m.	55·92	28th, 3 p.m.	35·60	9·96	38·59
September -	11·39	27th, 3 p.m.	20·44	29th, 6 a.m.	0·94	49·69	22nd, 9 a.m.	66·00	15th, 7 a.m.	32·06	7·98	41·71
October -	7·78	3rd, 3 p.m.	19·28	27th, 7 a.m.	−1·44	46·69	27th, Midnt.	65·01	23rd, 1 p.m.	23·20	6·83	39·86
November -	6·00	26th, 6 p.m.	11·89	16th, 4 a.m.	−1·44	48·50	16th, 10 and 11 p.m.	66·15	1st, 5 a.m.	23·12	5·84	42·66
December -	5·78	16th, 6 a.m.	11·22	12th, 7 a.m.	−3·61	756·34	12th, 11 a.m.	768·08	31st, 1 a.m.	733·67	6·07	750·27
Annual -	8·49	—	—	—	—	749·86	—	—	—	—	6·95	742·90

* 30 days.

† Lowest reading of standard barometer recorded; light cut off from barograph. Minimum probably lower.

‡ Corrected reading of Phillips' maximum thermometer, curve being indistinct.

Table I.—Mean Monthly Results, &c.—*continued.*

KEW.

Months.	Thermometer.					Barometer.					Pressure.	
	Means.	Extremes.				Means.	Extremes.				Vap.	Dry Air.
		Maximum.		Minimum.			Maximum.		Minimum.			
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.		
	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.	mm.
January -	5·94	10th, 2 p.m.	11·78	25th, 5 p.m.	−3·50	754·92	14th, 10 a.m.	766·79	20th, 1 a.m.	**722·29**	5·87	749·05
February -	1·94	26th, 4 p.m.	9·83	2nd, 4 a.m.	−3·61	63·51	18th, 11 a.m.	**81·88**	26th, 2 p.m.	32·01	4·37	59·14
March -	5·72	29th 3 p.m. & 30th 3 p.m.	16·94	14th, 4 a.m.	−2·06	56·43	26th, 10 a.m.	66·40	1st, 4 and 5 p.m.	39·07	5·74	50·69
April -	8·00	16th, 2 p.m.	22·67	26th, 6 a.m.	−1·11	61·40	9th, 11 p.m.	69·89	17th, 2 p.m.	48·98	5·82	55·58
May -	10·67	26th, 2 p.m.	21·00	20th, 4 a.m.	0·94	60·56	29th, 8 a.m.	71·99	5th, 11 p.m.	44·51	6·81	53·75
June -	15·17	29th, 1 p.m.	25·67	7th, 2 a.m.	6·11	60·44	21st, 8 a.m.	68·08	12th, 5 p.m.	48·67	9·50	50·94
July -	17·61	22nd, 2 p.m.	**30·28**	19th, 4 a.m.	8·83	60·31	21st, 8 a.m.	66·38	13th, 7 p.m.	45·37	10·62	49·69
August -	16·89	8th, 1 p.m.	28·06	29th, 5 a.m.	9·67	59·65	17th, 9 a.m.	66·59	28th, 3 p.m.	47·89	10·52	49·13
September -	12·44	27th, 2 p.m.	21·22	24th, 6 a.m.	4·00	60·46	22nd, 10 a.m.	75·12	15th, 1 p.m.	41·77	8·46	52·00
October -	8·78	3rd, Noon	22·06	30th, 8 a.m.	−3·11	58·00	28th, 7 and 8 a.m.	74·86	23rd, 1 p.m.	34·51	7·26	50·74
November -	7·17	23rd, 8 a.m.	14·33	13th, 6 a.m.	−2·78	58·28	16th, Midnt.	73·62	1st, 7 a.m.	38·39	6·40	51·88
December -	4·94	16th, 11 a.m.	13·39	10th, 10 a.m.	**−6·39**	768·62	13th, 10 a.m.	778·11	31st, 7 a.m.	749·03	5·84	762·78
Annual -	9·61	—	—	—	—	760·22	—	—	—	—	7·27	752·95

TABLE II.—PART 1.

FIVE-DAY MEANS of the DRY and WET BULB THERMOMETERS and BAROMETER, from the continuous Records at the Seven BRITISH OBSERVATORIES, January to June 1873.

Five-Day Periods.	THERMOMETERS.														BAROMETER.							Five-Day Periods.
	Valencia. 3·66 m.		Armagh. 1·22 m.		Glasgow. 2·13 m.		Aberdeen. 12·50 m.		Falmouth. 3·35 m.		Stonyhurst. 2·13 m.		Kew. 3·05 m.		Valencia. 7·01 m.	Armagh. 68·09 m.	Glasgow. 56·08 m.	Aberdeen. 26·82 m.	Falmouth. 64·31 m.	Stonyhurst. 110·08 m.	Kew. 10·36 m.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.								
	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	
Jan. 1–5	7·67	5·94	4·56	3·61	5·11	4·06	4·83	3·67	8·44	7·17	5·50	4·56	7·50	6·39	747·15	740·22	739·18	740·88	749·13	739·56	754·80	Jan. 1–5
,, 6–10	9·61	8·39	8·28	7·28	8·06	7·00	7·22	6·17	10·44	9·28	8·67	7·50	9·17	7·89	45·83	41·82	*40·83	44·56	49·52	42·37	57·92	,, 6–10
,, 11–15	8·89	8·06	7·78	7·06	7·28	6·39	7·06	5·39	9·22	8·50	8·22	7·22	9·28	8·17	56·75	49·39	47·64	47·96	56·99	47·30	61·78	,, 11–15
,, 16–20	5·61	4·00	2·28	1·67	2·78	2·06	3·06	1·94	6·72	5·44	4·00	3·00	6·56	5·44	41·82	33·79	*44·71	34·51	41·21	(36·97)	45·78	,, 16–20
,, 21–25	6·28	4·83	1·89	1·28	1·11	0·44	2·00	0·89	5·83	4·50	0·44	−0·22	2·67	1·83	45·25	39·61	39·07	40·85	40·73	35·37	45·25	,, 21–25
,, 26–30	7·28	5·89	4·72	3·89	2·56	1·67	3·83	2·78	5·78	4·50	1·33	0·44	1·22	0·22	55·67	53·07	55·69	59·90	53·18	52·11	62·24	,, 26–30
Feb. 31–4	3·22	1·89	0·78	*0·28	0·56	−0·89	1·44	0·28	3·78	2·50	0·28	†0·33	0·50	−0·33	58·66	56·78	58·71	63·18	51·11	51·06	57·26	Feb. 31–4
,, 5–9	4·39	2·56	0·78	0·28	(0·78)	(0·22)	2·06	1·28	3·72	2·11	2·44	1·50	1·50	0·56	69·71	64·42	§67·83	66·48	60·13	57·92	64·78	,, 5–9
,, 10–14	6·33	4·67	4·11	3·17	(3·17)	(1·83)	4·00	2·50	4·56	2·67	2·72	1·33	2·89	1·56	74·69	67·65	*63·64	66·50	*65·37	59·75	67·25	,, 10–14
,, 15–19	7·44	5·72	5·22	3·72	5·00	3·61	4·11	2·61	6·00	4·22	3·50	2·44	2·44	1·17	75·86	71·26	69·94	70·47	72·07	67·27	78·04	,, 15–19
,, 20–24	4·89	3·22	1·39	0·50	1·78	(1·50)	0·78	4·39	4·72	3·78	−0·39	−1·00	0·50	−0·28	62·83	58·41	*60·95	58·51	58·48	53·30	63·71	,, 20–24
,, 25–1	7·56	6·39	3·00	2·22	0·67	−0·44	1·11	0·17	7·61	6·39	1·78	0·67	4·28	3·17	43·12	38·80	40·55	44·21	40·58	35·47	46·27	,, 25–1
March 2–6	8·72	7·72	6·50	5·56	4·83	3·89	4·67	3·44	8·89	7·94	5·28	4·56	6·83	5·78	56·45	49·69	48·96	51·35	53·04	46·34	57·31	March 2–6
,, 7–11	6·17	4·50	3·89	3·00	3·83	2·83	4·33	3·17	6·72	5·22	3·56	2·83	5·72	4·44	47·79	38·75	37·22	39·97	44·51	34·76	48·35	,, 7–11
,, 12–16	4·61	2·83	2·22	1·00	2·28	0·80	2·33	1·11	4·78	3·28	1·44	0·28	3·00	1·89	54·37	51·16	52·13	56·12	46·47	45·61	53·13	,, 12–16
,, 17–21	5·94	4·00	3·72	2·56	3·61	2·00	3·89	2·50	5·61	3·83	3·56	2·33	4·17	3·06	63·96	59·80	60·10	63·49	54·87	52·89	59·45	,, 17–21
,, 22–26	7·28	5·89	5·89	4·67	4·61	3·94	4·44	3·94	7·94	6·67	5·50	4·28	6·44	5·11	60·44	58·33	60·03	64·27	55·79	54·85	63·00	,, 22–26
,, 27–31	8·56	7·39	9·39	8·11	6·11	5·11	5·06	4·78	*8·83	7·94	8·50	6·56	8·50	7·06	55·94	52·23	54·87	59·63	53·13	50·35	59·73	,, 27–31
April 1–5	9·22	8·17	7·33	6·06	7·06	5·22	6·89	4·94	(9·06)	(8·00)	7·06	5·78	9·00	7·00	66·10	57·67	55·21	56·27	60·85	52·53	63·44	April 1–5
,, 6–10	8·44	6·17	6·50	4·72	7·33	4·78	6·39	5·11	‖6·72	‖4·44	5·78	3·61	5·78	3·72	68·28	62·29	60·77	62·93	59·24	54·62	61·81	,, 6–10
,, 11–15	9·83	8·39	8·94	7·39	7·83	6·28	6·72	5·83	9·28	7·89	8·72	6·61	8·72	6·83	55·99	54·11	55·46	59·80	53·35	50·81	59·85	,, 11–15
,, 16–20	(11·94)	(10·22)	9·72	8·00	8·17	5·83	6·00	5·22	11·06	9·22	9·94	6·94	11·50	8·72	57·51	54·67	56·19	60·90	51·86	49·82	56·40	,, 16–20
,, 21–25	9·50	6·56	6·17	3·94	5·50	2·83	4·28	2·44	7·39	5·00	4·89	2·39	5·50	3·17	65·34	61·40	61·02	63·84	57·85	54·92	62·32	,, 21–25
,, 26–30	9·83	7·83	8·78	7·11	9·06	6·50	8·06	5·89	9·00	6·67	7·56	5·67	7·39	5·28	71·94	63·15	59·53	60·39	63·51	55·41	64·63	,, 26–30
May 1–5	10·17	8·22	8·56	6·50	7·78	5·89	7·67	5·83	10·39	8·56	8·39	6·72	10·44	7·94	59·29	51·45	48·86	50·94	53·68	45·63	56·29	May 1–5
,, 6–10	10·22	8·39	8·22	6·67	7·78	6·28	7·28	6·50	10·28	8·44	8·50	7·00	9·83	7·78	56·27	48·88	48·22	51·83	52·33	44·46	55·31	,, 6–10
,, 11–15	13·50	11·00	10·33	8·28	8·89	6·33	6·94	4·89	11·00	9·28	8·83	6·94	11·00	8·11	63·84	60·54	60·05	62·90	60·00	55·79	65·34	,, 11–15
,, 16–20	10·39	8·44	7·11	5·89	5·44	3·83	5·22	3·22	9·78	8·06	6·72	4·72	8·56	6·39	58·51	55·13	55·92	59·58	53·02	50·79	58·73	,, 16–20
,, 21–25	11·89	10·33	10·78	8·83	9·78	7·61	10·28	7·56	11·89	10·28	9·83	8·17	11·94	9·28	62·39	55·48	53·63	55·18	59·02	51·11	62·37	,, 21–25
,, 26–30	12·28	10·72	12·56	10·39	11·06	8·33	8·17	6·56	13·61	11·17	11·28	8·89	11·94	9·50	65·67	59·55	59·83	63·76	60·72	55·38	64·68	,, 26–30
June 31–4	14·50	12·50	13·83	11·72	13·17	10·61	10·78	9·39	13·06	10·89	12·72	10·22	13·39	10·72	63·31	59·12	59·93	64·20	56·07	53·50	60·03	June 31–4
,, 5–9	13·89	11·78	13·28	11·00	13·83	11·17	12·72	10·17	14·83	12·39	13·11	11·11	13·67	11·61	66·33	60·54	58·68	60·97	59·42	54·52	63·15	,, 5–9
,, 10–14	12·28	10·28	12·00	10·39	12·22	10·22	12·28	10·28	13·28	11·61	12·72	10·83	13·78	11·44	52·92	46·64	45·73	48·50	48·37	42·81	53·25	,, 10–14
,, 15–19	13·61	12·22	14·06	12·00	13·50	11·11	11·89	10·67	14·72	12·94	14·39	12·06	15·61	13·11	57·80	53·89	54·37	57·70	56·27	50·91	60·92	,, 15–19
,, 20–24	14·61	13·78	15·61	13·39	14·39	12·33	15·33	12·39	15·83	14·28	15·39	13·61	17·33	14·61	63·31	55·84	54·70	55·87	61·07	53·20	64·42	,, 20–24
,, 25–29	14·28	13·06	14·11	12·39	12·78	11·39	12·28	10·50	15·44	13·56	13·78	12·39	16·61	13·67	764·07	755·87	753·96	755·74	760·00	751·55	762·49	,, 25–29

NOTE.—The heights in the headings of the temperature columns are those of the thermometer bulbs above the ground. Those in the headings of the pressure columns are those of the barometer cisterns above mean sea level.

Means which are enclosed in brackets are for four days only, owing to various causes, such as clock stopping, defective photography, &c. &c.

* Mean for three days only. † Mean for one day only, 31st. ‡ Mean for two days only, 20th and 21st. Mean for two days only, 9th and 10th. § Mean for one day only, 8th.

TABLE II.—PART 2.

FIVE-DAY MEANS of the DRY and WET BULB THERMOMETERS and BAROMETER, from the continuous Records at the Seven BRITISH OBSERVATORIES, July to December 1873.

Five-Day Periods.	THERMOMETERS.														BAROMETER.							Five-Day Periods.
	Valencia. 3·66 m.		Armagh. 1·22 m.		Glasgow. 2·13 m.		Aberdeen. 12·50 m.		Falmouth. 3·35 m.		Stonyhurst. 2·13 m.		Kew. 3·05 m.		Valencia. 7·01 m.	Armagh. 63·09 m.	Glasgow. 56·08 m.	Aberdeen. 26·82 m.	Falmouth. 64·31 m.	Stonyhurst. 110·03 m.	Kew. 10·36 m.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.								
	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	
June 30–4	14·39	12·78	14·72	12·72	13·94	12·00	12·94	11·50	15·39	13·61	14·72	12·94	16·78	14·39	756·75	751·16	751·50	754·90	754·95	748·45	758·63	June 30–4
July 5–9	14·50	13·00	14·17	12·50	14·28	12·22	15·11	12·61	15·78	13·78	14·83	12·61	17·17	14·22	56·88	51·75	52·28	55·13	56·58	50·38	61·51	July 5–9
,, 10–14	12·94	11·39	12·67	11·39	13·11	11·17	13·22	11·33	14·61	12·56	13·83	11·83	15·94	13·22	53·65	46·88	46·24	48·98	50·79	43·73	55·16	,, 10–14
,, 15–19	14·61	13·06	13·94	12·39	12·89	11·17	12·61	10·83	15·56	13·61	13·72	11·89	16·00	13·22	60·95	53·63	52·16	54·11	58·63	49·97	61·71	,, 15–19
,, 20–24	16·72	15·17	17·72	16·17	18·28	16·11	17·56	15·56	17·22	15·50	20·06	17·44	20·94	17·56	59·83	55·36	55·36	57·95	58·10	52·69	62·83	,, 20–24
,, 25–29	14·56	13·28	14·78	13·50	14·50	13·00	14·39	13·28	15·50	13·44	15·78	13·83	17·78	14·61	59·14	53·20	53·25	56·29	56·27	49·99	60·75	,, 25–29
Aug. 30–3	15·56	13·89	14·72	13·33	14·11	12·50	15·11	12·50	16·89	14·61	15·11	13·22	17·56	14·61	63·15	55·92	54·19	55·46	60·39	52·31	63·64	Aug. 30–3
,, 4–8	15·83	14·78	15·33	13·94	14·11	12·39	14·61	12·00	17·28	15·78	15·33	14·11	19·33	16·50	61·58	53·83	52·03	53·13	58·36	50·20	61·42	,, 4–8
,, 9–13	15·00	13·44	13·72	12·61	12·50	10·89	12·50	10·50	16·17	13·94	13·61	12·06	16·39	13·39	63·20	54·65	52·31	53·70	59·48	50·28	61·42	,, 9–13
,, 14–18	14·67	13·06	13·89	12·56	13·67	11·94	(14·44)	(12·06)	15·94	14·39	14·00	12·22	17·17	14·28	58·94	52·56	52·03	54·24	57·14	50·33	61·66	,, 14–18
,, 19–23	14·11	12·44	13·33	12·00	*13·17	*11·78	(11·94)	(10·83)	14·94	13·61	14·06	12·50	15·72	13·56	53·96	48·91	49·13	52·59	51·67	45·48	56·37	,, 19–23
,, 24–28	14·61	12·78	14·11	13·06	(14·06)	(12·78)	13·39	12·67	14·56	13·44	15·56	13·83	17·28	15·06	52·97	†50·18	50·28	54·80	(50·23)	45·68	56·43	,, 24–28
Sept. 29–2	13·78	12·44	12·67	11·72	†12·00	†10·78	12·78	11·11	†15·39	†12·61	13·06	11·72	15·22	13·33	57·04	48·98	47·08	49·03	(53·43)	44·18	56·04	Sept. 29–2
,, 3–7	12·61	10·33	10·72	9·33	10·28	7·89	10·17	8·61	†12·83	†11·11	10·61	8·72	11·72	10·00	65·01	58·36	56·50	57·85	58·05	51·55	60·82	,, 3–7
,, 8–12	13·11	11·44	10·89	9·56	10·72	9·28	10·67	9·33	13·72	(11·89)	11·33	9·78	13·11	10·94	55·69	47·59	45·40	46·90	53·04	43·83	56·07	,, 8–12
,, 13–17	12·22	11·06	10·78	9·61	10·50	8·94	10·33	9·11	13·00	11·83	11·17	9·61	12·22	10·56	53·78	46·34	45·05	47·45	48·91	41·00	52·23	,, 13–17
,, 18–22	12·61	11·17	10·56	9·11	10·39	8·61	10·06	7·94	13·56	12·17	11·50	9·72	12·94	10·78	65·69	59·14	56·50	56·94	62·29	54·60	66·13	,, 18–22
,, 23–27	13·89	12·28	12·83	11·28	12·67	10·78	†11·44	†10·06	13·56	12·56	12·83	10·94	11·83	10·11	62·64	59·73	60·29	†66·48	60·46	57·11	66·96	,, 23–27
Oct. 28–2	13·28	11·94	11·67	10·67	8·94	7·94	8·78	7·17	13·72	12·78	11·17	10·00	12·50	11·22	58·97	55·33	55·43	58·78	56·78	52·13	62·39	Oct. 28–2
,, 3–7	11·39	10·11	9·78	8·83	8·72	7·44	8·44	6·83	13·33	12·06	11·28	10·00	13·11	11·83	59·48	52·97	51·96	54·24	55·31	48·86	59·48	,, 3–7
,, 8–12	11·22	10·00	8·72	7·67	8·00	6·89	8·11	(6·17)	11·61	10·78	9·22	8·22	11·00	9·94	53·99	45·81	43·73	45·02	52·13	42·88	55·82	,, 8–12
,, 13–17	9·83	8·50	7·67	6·72	7·17	6·11	6·67	28	10·28	9·11	7·00	6·11	7·56	6·50	59·50	53·30	51·55	53·07	55·16	48·93	59·88	,, 13–17
,, 18–22	10·67	(9·33)	7·56	6·50	6·83	5·56	6·28	4·50	11·22	9·83	7·56	6·44	10·00	8·56	59·24	49·49	45·58	45·78	55·13	44·59	57·34	,, 18–22
,, 23–27	6·72	(5·00)	2·61	1·89	3·06	2·00	4·17	2·56	7·22	5·61	3·39	2·22	5·44	4·56	54·01	48·35	47·64	49·37	48·15	43·19	52·31	,, 23–27
Nov. 28–1	9·17	7·61	6·11	5·17	6·72	5·67	6·67	5·56	7·83	6·44	5·22	4·33	3·28	2·61	55·69	48·72	47·33	48·98	53·91	46·52	58·81	Nov. 28–1
,, 2–6	7·56	6·17	4·67	4·00	5·11	4·06	3·89	3·28	8·17	7·00	5·22	4·56	6·94	6·22	45·98	40·88	41·41	45·32	39·94	36·77	46·59	,, 2–6
,, 7–11	7·72	6·22	5·72	4·50	5·78	4·06	6·33	(5·00)	8·44	7·39	6·28	4·72	7·33	6·33	63·13	61·10	62·72	67·22	54·09	54·85	61·05	,, 7–11
,, 12–16	7·00	5·56	4·50	3·72	3·11	2·22	5·61	4·06	7·83	6·56	4·22	2·78	4·67	3·44	63·76	62·44	63·89	67·70	57·36	57·61	65·03	,, 12–16
,, 17–21	8·06	7·06	4·94	4·11	3·28	2·72	5·78	4·61	8·11	6·78	4·78	3·83	6·06	5·06	65·52	61·37	61·00	62·49	60·56	57·14	66·56	,, 17–21
,, 22–26	10·39	9·61	8·50	7·39	7·94	6·44	6·44	(5·00)	11·17	10·61	8·17	7·11	9·44	8·11	56·65	48·57	45·37	45·20	53·65	44·26	56·70	,, 22–26
Dec. 27–1	10·61	9·00	8·22	7·33	7·67	6·39	6·72	5·28	9·72	8·50	7·83	6·83	8·06	6·56	63·00	52·33	48·70	48·17	59·58	47·28	60·18	Dec. 27–1
,, 2–6	10·61	9·56	8·28	7·28	(7·28)	(6·44)	6·83	5·50	9·44	8·61	7·89	7·11	7·22	6·33	72·70	66·74	65·47	66·18	70·06	63·29	74·69	,, 2–6
,, 7–11	8·89	7·56	6·67	5·56	7·39	6·33	7·61	6·06	7·67	6·22	5·33	4·50	0·28	−0·11	73·04	67·91	(66·76)	66·43	70·24	64·83	76·42	,, 7–11
,, 12–16	9·83	8·56	7·17	6·00	7·00	5·72	6·56	5·11	8·11	7·06	3·78	2·94	3·72	3·22	68·37	61·88	60·39	60·08	66·10	58·71	70·91	,, 12–16
,, 17–21	10·06	9·06	7·44	6·67	7·22	6·11	5·78	(4·56)	9·61	8·94	7·72	7·11	8·72	7·89	63·05	54·65	51·77	(52·67)	60·75	51·16	63·71	,, 17–21
,, 22–26	9·50	8·50	6·83	5·94	6·17	5·28	3·33	2.28	9·11	8·22	6·94	5·94	6·78	5·83	64·17	56·68	53·83	54·75	61·81	52·84	65·69	,, 22–26
,, 27–31	7·56	6·11	4·28	3·22	3·83	2·78	3·17	2·28	7·39	6·00	2·39	1·56	2·94	2·22	753·78	748·05	747·74	749·59	753·10	746·49	759·19	,, 27–31

NOTE.—The heights in the headings of the temperature columns are those of the thermometer bulbs above the ground. Those in the headings of the pressure columns are those of the barometer cisterns above mean sea level.

Means which are enclosed in brackets are for four days only, owing to various causes, such as clock stopping, defective photography, &c. &c.

* Mean for two days only 19th and 22nd. † Mean for three days only.

APPENDIX II.

Rainfall of the London District for 60 years, 1813–72.

By kind permission of Mr. George Dines, the Meteorological Committee are enabled to include in the present volume of the Quarterly Weather Report the valuable results of his discussion of the mean rainfall of London for the past sixty years. The author's remarks on his graphical results, and the tables on which these are founded, are as follows:—

REMARKS.

"The tables given at p. [14] have been compiled from various journals kept in or near London during the last 60 years. For the earlier years very little information is to be obtained; and the years 1813–14 are from one journal only—that of Luke Howard. In 1815 the Greenwich record commences. For 1817 four journals have been found available; for 1819 five. In 1825 the Cobham Journal commences, followed by that of Chiswick in 1826. After that time the number gradually increases, until it was only considered necessary to select a few journals fairly scattered over the district."

"The rainfall in each month at the different places has been added together and divided by the number of places to obtain the averages given in the tables; by this means any exceptional fall of rain at one place has been corrected; and by comparing the different journals together, the opportunity has been afforded of rejecting those figures which appeared to be doubtful. No labour has been spared in collating together the most trustworthy records, and although extreme accuracy is out of the question, the tables may be taken as the best that can ever be compiled of the London rainfall for this long period of time."

"The tables show the yearly average rainfall over the whole district during 60 years to have been about 24½ inches; but this slightly varies in different parts, less rain falling in the Thames Valley above London, and in that part of the district the average fall has been slightly under 24 inches. The tables of the daily rainfall and of the rainfall for five consecutive days have been compiled almost exclusively from three journals, those of Chiswick, Cobham, and Greenwich, there being no other *daily* records near London extending over so long a period."

"The plan adopted for obtaining the averages has been to add together the rainfall of each day for the 47 years at the three places, and divide their sum by 141. The day of least rainfall has been March 24th; the day of greatest fall October 22nd. Taking five days in succession, the least rainfall has been from March 22nd to 26th; the greatest from October 22nd to 26th, both inclusive."

"The best thanks are due to the Meteorological Society, to Mr. Glaisher, and especially to Mr. Symons, for the kindness they have shown in allowing copies to be taken from manuscript journals in their possession."

(Signed) Geo. Dines.

MONTHLY MEANS.

MONTHS.	Averages for 30 Years, 1813–1842.	Averages for 30 Years, 1843–1872.	Averages for 60 Years, 1813–1872.
	Inches.	Inches.	Inches.
January - -	1·67	2·15	1·91
February - -	1·59	1·41	1·50
March - -	1·52	1·52	1·52
April - -	1·74	1·57	1·66
May - -	2·01	2·13	2·07
June - -	1·99	2·02	2·01
July - -	2·33	2·32	2·32
August - -	2·16	2·37	2·26
September - -	2·53	2·18	2·35
October - -	2·60	2·88	2·74
November - -	2·55	2·00	2·28
December - -	2·13	1·73	1·93
Annual - -	24·82	24·28	24·55

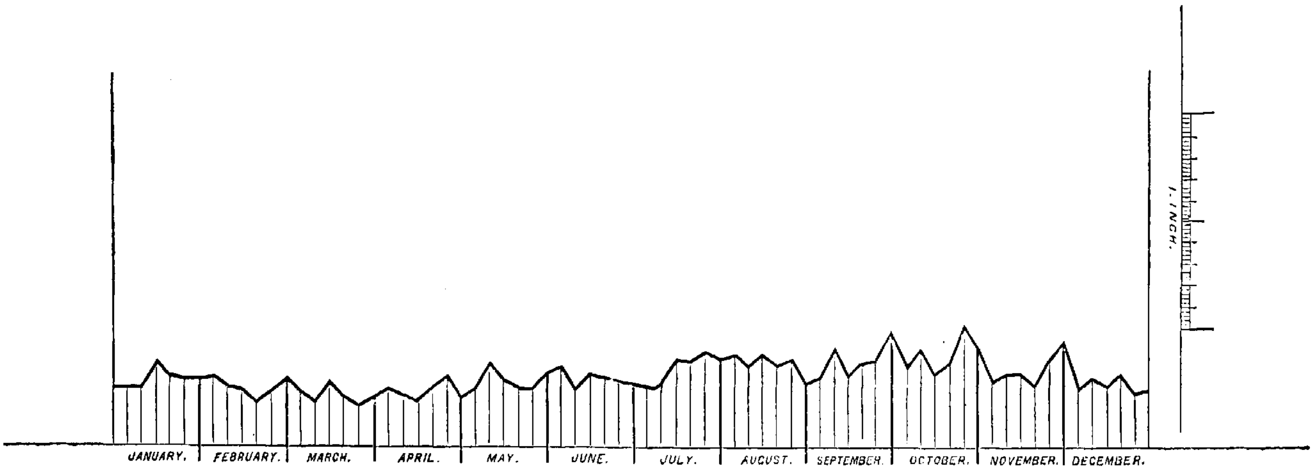
The next table shows the monthly averages for 47 years for the three stations which have been used for the calculation of the daily and five-day means.

MONTHLY MEANS.—AVERAGE OF CHISWICK, COBHAM, AND GREENWICH.

MONTHS.	Average for 47 Years, 1826–1872.
	Inches.
January - - -	1·94
February - -	1·48
March - - -	1·46
April - - -	1·57
May - - -	1·96
June - - -	1·95
July - - -	2·36
August - - -	2·38
September - -	2·44
October - - -	2·73
November - -	2·20
December - -	1·73
Annual - -	24·20

The following diagram gives in a graphical form the results of the five-day means.

Average Rainfall for each five-days, obtained from 47 years observations at Chiswick, Cobham, and Greenwich, 1826–1872.



The figures on which the above curve is based are as follows:—

Period.	Ins.	Period.	Ins.	Period.	Ins.	Period.	Ins.	Period.	Ins.	Period.	Ins.
Jan. 1–5	·272	March 2–6	·251	May 1–5	·271	July 1–5	·290	Sept. 1–5	·330	Nov. 1–5	·324
„ 6–10	·267	„ 7–11	·208	„ 6–10	·381	„ 6–10	·308	„ 6–10	·462	„ 6–10	·341
„ 11–15	·389	„ 12–16	·305	„ 11–15	·324	„ 11–15	·403	„ 11–15	·311	„ 11–15	·352
„ 16–20	·317	„ 17–21	·218	„ 16–20	·296	„ 16–20	·404	„ 16–20	·388	„ 16–20	·289
„ 21–25	·313	„ 22–26	·182	„ 21–25	·278	„ 21–25	·449	„ 21–25	·408	„ 21–25	·417
„ 26–30	·309	„ 27–31	·237	„ 26–31	·341 (for 5 days).	„ 26–31	·422 (for 5 days).	„ 26–30	·541	„ 26–30	·477
Feb. 31–4	·322	April 1–5	·269	June 1–5	·375	August 1–5	·423	October 1–5	·378	Dec. 1–5	·271
„ 5–9	·268	„ 6–10	·242	„ 6–10	·272	„ 6–10	·375	„ 6–10	·454	„ 6–10	·313
„ 10–14	·251	„ 11–15	·237	„ 11–15	·341	„ 11–15	·430	„ 11–15	·335	„ 11–15	·285
„ 15–19	·200	„ 16–20	·266	„ 16–20	·339	„ 16–20	·383	„ 16–20	·405	„ 16–20	·333
„ 20–24	·257	„ 21–25	·326	„ 21–25	·322	„ 21–25	·411	„ 21–25	·583	„ 21–25	·236
„ 25 March 1	·314	„ 26–30	·230	„ 26–30	·301	„ 26–31	·298 (for 5 days).	„ 26–31	·479 (for 5 days).	„ 26–31	·243 (for 5 days).

It will be seen that the periods are only 72 in number instead of 73, the last periods respectively in May, July, August, October, and December containing six days each. In these cases, however, the figure given is only that which would have resulted had the period been of the usual length.

APPENDIX III.

The Permanent Committee of the Vienna Congress having recommended that actual observations at stations of the second order should be published from a certain number of stations in each country, on a uniform plan, in order to facilitate climatological enquiries; the Committee have at once resolved to co-operate in an international undertaking of the nature proposed, and while the systematic publication of such results will commence with the year 1875, they have determined to publish the observations taken by Dr. Ralph Copeland at Parsonstown, for the Earl of Rosse, F.R.S., for the year 1873, although the hours of observation are not the same as those adopted at present. To these tables are appended the monthly summaries for the same year for the six stations of

	Observer.
Sandwick Manse	Rev. C. Clouston, LL.D.,
Seaham Harbour	Mr. G. H. Aird,
Durham	J. J. Plummer, M.A.,
Hull	Rev. W. P. Mackay, D.D.,
Dublin	J. W. Moore, M.D.,
Parsonstown	R. Copeland, Ph. D.

These results are published on the form also proposed by the Permanent Committee, as will be seen from p. 9 of their Report.

It will be noticed that the symbols proposed by the Vienna Congress have been employed in the "Remarks" column. They are as follows:

Rain	●	Hoar-frost	⊔	Solar Corona	⊕
Snow	✱	Dew	⌂	Solar Halo	○
Thunderstorm	R	Silver-thaw ("Rauh-frost," "Duft")	V	Lunar Corona	Ⓤ
Lightning, without Thunder, or Sheet Lightning	<	Glazed Frost ("Glatteis")	∼	Lunar Halo	(U)
Hail	▲	Snow-drift	†	Rainbow	⌒
Soft-Hail ("Graupel")	△	Ice crystals	←	Aurora	♕
Mist, Fog	≋	Strong wind	/	Dust Haze ("Höhenrauch")	∞

In respect of their intensity, the individual phenomena are distinguished by the figures 0 and 2, which are used as exponents of the symbols, in such a way that 0 indicates very slight, 2 strong.

e.g. $\bullet^{0}$ slight Rain.
$\bullet^{2}$ heavy Rain.

The figures placed after the symbols indicate the period of occurrence of the respective phenomena. Thus in the case of Parsonstown:

1	indicates	8 a.m.
2	"	4 p.m.
3	"	Midnight.
1·3	"	From 8 a.m. to midnight.
8*a*–4*p*	"	From 8 a.m. to 4 p.m.

The explanation of this mode of expression will be found in the Report of the Permanent Committee above referred to.

The tables employed for Hygrometrical Reductions are Glaisher's (Fifth Edition), except in the case of Parsonstown where Kämtz's tables have been used.

The monthly rainfall values for Parsonstown differ from those already printed in the tables of rainfall (pp. 20, 32, 44, and 73), inasmuch as these latter are for the months composed of civil days ending at midnight, the former for the months composed of days ending at 8 a.m.

BIRR CASTLE, PARSONSTOWN.

Lat. 53° 6′ N. Long. 7° 55′ W.

Observer, R. COPELAND for EARL OF ROSSE. Height of Rain Gauge above ground 8 ins., above M. S. L. 183 ft.

JANUARY 1873.

Date.	Barometer. Reduced to 32° and Sea Level.			Air Temperature.					Tension of Vapour.			Relative Humidity.			Wind. Direction and Force. Beaufort Scale.			Amount of Cloud. 0-10.			Rain.	Remarks.
	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Min.	Max.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Measured at 8 a.m.	
	ins.	ins.	ins.	°	°	°	°	°	ins.	ins.	ins.	%	%	%							ins.	
1	29·577	29·176	29·137	37·7	45·0	39·9	35·8	46·7	·205	·282	·234	93	94	96	SSW 2	SSE 6	SE 0·5	4	10	9	·131	< 3
2	·282	·447	·304	37·8	38·9	41·6	36·6	47·6	·208	·194	·229	93	85	89	SW 1	WSW 2	SE 2	4	6	10	·123	
3	·214	·483	·686	42·9	39·1	35·4	36·7	46·1	·203	·200	·189	77	86	92	SW 5	SSW 2	SE 0·5	9	3	0	·133	
4	·411	·422	·525	44·4	40·3	35·2	34·1	46·0	·274	·233	·197	95	94	97	WSW 3-4	SW 0·5	SW 0·5	10	10	10	·493	
5	·511	·511	·607	36·3	37·9	47·6	32·7	45·8	·200	·183	·298	95	84	92	SW 2	WSW 2	SSW 2-4	10	4	10	·202	
6	·657	·672	·747	50·4	51·2	50·9	36·0	51·4	·317	·306	·318	88	82	87	SSW 2	SSW 3	SSW 3	10	10	10	·005	
7	·766	·597	·341	47·9	47·0	48·5	47·0	52·7	·262	·281	·249	81	89	**75**	SSW 2	SSE 3	S 6	5	7	7	—	
8	·455	·417	·308	43·8	42·0	41·9	42·9	52·0	·239	·229	·244	86	88	93	SE 1-2	SSE 1	E 0·5	10	6	9	·056	≋ 3
9	·262	·126	·168	42·0	48·5	45·2	36·7	47·5	·238	·322	·266	91	95	89	E 0·5	SW 2	SW 1-2	1	10	7	·304	
10	·319	·377	·441	45·4	46·1	41·7	40·9	50·2	·263	·269	·247	88	88	94	SE 1-2	SW 1	SE 0·5	4	6	1	·200	
11	·556	·607	·761	40·8	46·7	43·6	39.7	49·1	·233	·280	·249	93	90	89	SE 1	SW 0·5	NW 0·5	0	9	10	·160	
12	·888	·863	·672	34·9	45·1	46·5	33·6	50·3	·201	·239	·276	100	82	89	NE 0·5	SSW 1	SW 5-6	9	8	10	·111	≋ 2
13	·750	·844	·908	50·9	51·8	51·1	34·5	52·4	·359	·371	·365	97	97	97	SW 1	SW 3	SW 2	10	10	10	·060	≋ 1
14	·857	·880	·825	50·6	50·2	49·9	48·6	**53·1**	·322	·323	·306	89	90	86	SE 1-2	SSW 2	SW 2	9	10	10	·121	
15	·896	·906	·895	43·4	42·1	34·7	42·5	52·7	·267	·246	·183	95	93	92	W 0·5	Calm 0	SW 1	10	10	10	**1·114**	≋ 2 ✳ 3
16	·691	·827	·915	34·9	39·2	33·6	32·1	44·7	·201	·209	·179	100	90	93	NE 0·5	SW 1	S 0·5	10	9	0	—	
17	·803	29·884	29·812	38·9	38·9	34·6	31·9	40·1	·199	·182	·168	87	82	86	SW 1	SSW 1	SSW 1-2	8	2	5	.108	≋ 2 ✳ 3
18	29·379	28·969	28·745	41·9	45·5	41·6	32·5	44·7	·237	·286	·220	91	95	87	SW 2-3	SW 1-2	SW 1-2	10	10	0	·473	
19	28·604	·421	·396	35·9	33·5	29·0	34·0	48·8	·188	·180	·134	91	95	89	WSW 1-2	SSW 2	NE 0·5	10	10	6	·505	✳ 2
20	28·353	28·511	·869	30·3	28·1	22·0	21·7	36·8	·148	·128	·103	94	88	97	Calm 0	Calm 0	E 0·5	10	7	2	·160	✳ 1 ≋ $^{2}_{2}$
21	29·073	29·077	28·785	27·8	33·1	34·8	**18·9**	32·7	·137	·169	·192	96	90	96	NE 0·5	E 0·5	E 1	4	6	4	·220	≋ $^{2}_{2}$
22	28·862	·067	29·452	33·9	38·3	33·4	26·7	36·8	·190	·199	·177	98	88	93	NNE 1-2	W 1	N 0·5	10	9	0	·008	
23	29·449	·283	·468	34·1	39·5	33·1	31·0	39·7	·191	·206	·183	98	87	97	NW 1	E 0·5	NW 0·5	3	10	4	·009	≋ $^{2}_{3}$
24	·712	·844	·900	29·9	39·9	29·9	29·1	40·7	·149	·202	·151	96	85	97	NE 0·5	Calm 0	NNE 0·5	1	1	0	—	
25	·720	·520	·381	37·3	44·9	48·8	28·5	42·5	·202	·275	·326	92	93	95	SW 1	SE 3	SE 3	10	10	10	·320	
26	·477	·626	·785	41·7	46·5	39·9	36·6	49·7	·253	·273	·230	97	88	94	S 0·5	SSE 0·5	SSW 0·5	7	6	4	—	≋ 1·3
27	·898	·860	·792	37·0	45·4	43·8	36·7	51·1	·215	·258	·237	98	87	85	SE 0·5	SE 1	SE 2-3	2	1	9	·006	
28	·736	·777	·919	42·9	43·6	42·0	36·4	48·0	·233	·259	·252	86	92	95	SSW 2-3	SE 3	Calm 0	10	10	10	·230	
29	29·980	29·997	29·964	40·1	38·9	35·0	36·9	45·0	·240	·211	·192	98	92	95	W 0·5	E 0·5	E 0·5	10	10	8	·081	≋ $^{2}_{3}$
30	30·019	30·053	30·084	35·2	36·4	36·9	33·6	41·7	·154	·182	·167	78	87	80	SE 0·5	SE 0·5	E 0·5	8	9	10	—	≋ 2·3
31	30·080	29·985	29·906	36·9	36·3	38·0	33·7	37·7	·175	·162	·204	84	79	90	SSE 0·5	SE 2-3	SE 3	10	10	10	·026	≋ 2
Mean	29·524	29·517	29·532	39·6	41·9	39·7	34·8	45·9	·223	·237	·225	92	89	91	1·3	1·5	1·5	7·4	7·7	6·6	5·359	

FEBRUARY.

Date.	Bar. 8 a.m.	Bar. 4 p.m.	Bar. Midt.	Air 8 a.m.	Air 4 p.m.	Air Midt.	Min.	Max.	Vap. 8 a.m.	Vap. 4 p.m.	Vap. Midt.	Hum. 8 a.m.	Hum. 4 p.m.	Hum. Midt.	Wind 8 a.m.	Wind 4 p.m.	Wind Midt.	Cloud 8 a.m.	Cloud 4 p.m.	Cloud Midt.	Rain	Remarks.
1	29·828	29·713	29·484	38·4	38·0	29·8	35·4	39·9	·205	·202	·146	90	89	94	SE 3-4	ESE 3-4	ENE 3-4	10	10	10	**·240**	✳ 2·3
2	29·474	29·668	29·886	29·7	30·7	25·1	28·4	39·7	·143	·144	·106	92	90	80	NE 3	NE 3	N 1	10	10	0	·058	✳ 1·2
3	30·071	30·215	30·364	22·1	33·5	26·1	21·5	32·3	·109	·184	·112	100	86	81	NE 0·5	NW 0·5	NW 0·5	0	1	0	—	
4	·429	·367	·235	19·9	32·8	30·2	**18·8**	36·3	·095	·175	·128	100	100	80	Calm 0	W 0·5	SE 1	0	2	10	·054	≋ 3
5	·066	·129	·209	33·4	38·9	30·0	19·5	36·9	·156	·192	·169	95	84	100	W 0·5	NW 1	SE 0·5	10	1	3	·010	≋ 1
6	·267	·283	·367	29·8	38·0	28·5	30·0	41·5	·142	·199	·133	90	89	91	NE 0·5	NNW 1	SE 0·5	2	1	1	—	≋ 3 {Reading at 8 a.m. below minimum.
7	·395	·376	·405	27·1	40·0	27·0	25·8	39·7	·133	·183	·129	98	78	95	NE 0·5	NNW 1	Calm 0	1	0	0	·011	≋ 3
8	·415	·384	·442	24·0	38·9	28·6	23·2	41·9	·118	·183	·132	95	81	89	Calm 0	NNE 1	ENE 0·5	1	6	2	—	
9	·467	·439	·458	28·9	38·3	34·9	23·4	41·3	·147	·199	·193	100	88	96	Calm 0	NNW 1	NNW 0·5	9	9	3	·012	≋ 3
10	·527	·604	·701	35·9	41·5	30·9	23·1	39·9	·208	·200	·139	99	80	84	Calm 0	NNW 2	N 1	8	7	1	—	
11	·712	·556	·403	32·7	39·2	40·5	29·6	44·8	·140	·187	·236	82	82	94	NE 1-2	NNW 1-2	NNW 1	10	9	9	·004	
12	·428	·445	·487	34·9	43·9	33·6	32·0	42·2	·184	·194	·183	92	72	96	NE 0·5	N 1-2	Calm 0	0	2	10	·009	
13	·436	·359	·390	38·0	44·9	40·3	33·3	46·4	·224	·221	·238	98	77	96	W 1	NNW 1	NNW 0·5	9	10	10	·018	≋ 3
14	·416	·473	·479	39·9	43·9	40·9	37·4	45·7	·241	·238	·232	98	84	92	NW 0·5	NW 0·5	NW 0·5	10	10	10	—	
15	·516	·523	·559	39·9	41·8	40·1	38·5	45·1	·186	·206	·206	78	81	86	E 0·5	SSW 0·5	Calm 0	10	10	10	—	≋ 3
16	·574	·536	·578	37·9	44·3	41·1	36·6	42·6	·183	·194	·187	83	71	77	SE 0·5	SSE 1	SSW 0·5	10	10	10	—	
17	·605	·624	·692	41·1	43·7	40·3	37·1	45·7	·204	·200	·204	82	74	84	SE 0·5	SW 0·5	SE 0·5	10	10	10	--	≋ 3
18	·692	·674	·681	40·0	40·9	39·9	39·1	45·0	·197	·202	·221	82	82	91	SE 0·5	SE 0·5	Calm 0	10	10	10	--	≋ 2·3
19	·695	·660	·681	39·8	45·2	34·9	38·6	42·2	·222	·207	·184	92	73	92	SSE 0·5	Calm 0	SE 0·5	10	9	9	—	≋ 3
20	·634	·534	·479	35·1	48·2	30·9	33·3	46·7	·199	·222	·150	98	**70**	93	Calm 0	ESE 0·5	Calm 0	8	6	0	—	≋ 2
21	30·357	30·178	30·071	35·3	41·1	37·9	29·1	**52·4**	·198	·193	·205	97	79	91	SW 0·5	W 0·5	WSW 1	10	10	3	·051	≋ 1
22	29·986	29·957	29·932	37·9	40·5	34·7	34·6	41·9	·220	·184	·160	97	77	81	W 0·5	NW 0·5	E 0·5	10	9	10	·024	
23	·759	·894	·923	33·4	32·0	28·7	32·6	44·8	·181	·116	·130	96	**70**	87	SW 1	NNW 2	E 0·5	4	3	10	·010	○ 4.40 p.m.†
24	·829	·751	29·528	28·9	33·9	30·5	27·6	43·0	·125	·151	·149	86	81	94	NE 0·5	E 2	E 3	10	10	10	·086	≋ 1 ✳ 3
25	29·297	·014	28·791	37·9	46·7	42·8	28·3	38·7	·218	·275	·253	96	88	93	SE 1-2	S 2	SW 1	5	10	7	·107	
26	28·864	·044	29·371	41·9	44·9	37·1	37·1	49·1	·260	·236	·194	98	81	89	W 0·5	NNW 2-3	W 1-2	10	10	5	--	≋ 3
27	29·615	·609	·703	34·3	41·9	29·9	32·0	47·3	·184	·174	·139	94	72	87	NW 0·5	Calm 0	NNW 0·5	7	8	1	--	
28	29·795	29·671	29·261	24·8	41·0	37·6	23·8	44·2	·121	·179	·209	100	74	94	NW 0·5	E 3	SE 4-5	10	10	10	·215	≋ *8a-4p*
Mean	30·184	30·167	30·163	33·7	40·3	34·0	30·3	42·8	·177	·194	·174	93	80	90	0·7	1·2	0·9	7·3	7·3	6·2	·909	

NOTES.—Min. and max. temps. read at 8 a.m. Tension of Vapour obtained from Kämtz's tables. Dorpat, 1868.
† Faint mock suns, same alt. as sun. Semicircular arch passing over the sun and through the mock suns.

MARCH.

Date.	Barometer. Reduced to 32° and Sea Level.			Air Temperature.					Tension of Vapour.			Relative Humidity.			Wind. Direction and Force. Beaufort's Scale.			Amount of Cloud. 0–10.			Rain.	Remarks.
	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Min.	Max.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Measured at 8 a.m.	
	ins.	ins.	ins.	°	°	°	°	°	ins.	ins.	ins.	%	%	%							ins.	
1	28·949	29·006	29·472	44·1	44·0	38·3	**24·4**	45·1	·281	·280	·165	98	98	76	SE 0·5	NW 1	WSW 3	10	10	4	·554	≋ 1
2	29·721	·802	·674	37·9	46·0	43·9	34·1	48·4	·198	·246	·272	89	82	95	SW 0·5	SE 1	ESE 2	5	10	10	·164	
3	·616	·667	·729	49·9	51·8	48·6	36·8	51·1	·360	·360	·333	100	94	98	SW 1-2	SW 1	WSW 1	10	10	10	·066	
4	29·755	29.749	29·875	47·0	52·8	43·7	48·4	53·5	·296	·289	·272	93	74	96	E 1-2	WSW 1-2	NW 1	9	6	10	·012	≋ 2 Reading at 8 a.m. below minimum.
5	30·010	30·088	30·039	42·5	48·1	37·2	39·1	54·3	·266	·252	·214	98	77	97	SW 1-2	WNW -	SE 0·5	10	9	5	—	≋ 3
6	29·844	29·645	29·467	43·1	43·9	39·9	36·0	51·0	·230	·269	·236	84	94	97	SW 1	Calm 0	Calm 0	10	10	10	·608	≋ 3
7	·399	·444	·519	35·7	41·9	37·5	34·9	48·2	·206	·219	·211	99	85	95	SE 0·5	WNW 1	WSW 0·5	3	6	8	·110	
8	·511	·387	·465	36·3	45·5	37·1	32·5	47·8	·202	·262	·207	96	88	95	SE 0·5	SW 2	E 0·5	3	10	3	·193	≋ 1
9	.450	·264	·366	38·0	41·0	33·6	33·4	50·6	·202	·188	·181	89	77	95	SE 0·5	SW 2-3	SW 0·5	3	8	9	·482	✱ 3
10	·352	·326	·209	33·1	39·0	38·9	31·8	45·0	·183	·193	·211	98	84	91	W 0·5	WSW 1	SW 1	7	9	1	·152	
11	·311	·361	·515	40·0	41·1	31·9	32·5	42·1	·208	·209	·169	86	83	96	SW 2-3	NNW 2-3	NE 0-5	5	9	0	·026	
12	·565	·570	·573	34·3	42·3	29·1	28·6	46·4	·188	·158	·135	96	66	90	NW 0·5	N 2	NE 0-5	5	5	0	·040	≋ 1
13	·535	·602	·742	33·6	42·1	29·5	28·1	45·0	·188	·167	·143	98	70	92	NNW 0.5	NW 2	Calm 0	10	7	1	·007	≋ 1
14	·836	·873	·983	28·5	42·2	32·9	25·0	44·0	·142	·151	·172	96	65	92	Calm 0	NE 1-2	NE 0·5	1	2	3	—	≋ 3
15	·997	·942	·915	33·1	42·0	35·7	28·1	44·3	·169	·170	·156	90	71	78	NNE 1	NE 3-4	ESE 2-3	1	5	2	—	≋ 2·3
16	·850	·830	29·885	34·9	40·0	36·4	32·5	45·3	·176	·192	·205	88	81	96	E 2-3	SE 1-2	N 0·5	10	10	10	·005	
17	29·933	29·985	30·089	35·9	39·3	38·4	33·6	41·2	·192	·206	·218	93	88	95	SE 0·5	NE 1	N 0·5	10	10	10	—	≋ 3
18	30·135	30·150	·171	38·7	42·9	35·4	35·4	41·4	·212	·203	·195	92	77	95	NE 0·5	NNE 1	E 0·5	10	9	10	.042	
19	·083	·165	·251	40·7	46·0	31·9	33·0	41·9	·228	·213	·162	91	73	94	NE 0·5	ENE 2	N 0·5	1	9	6	—	≋ 3 Reading at 4 p.m., 18th, above max.
20	·292	·207	30·247	30·7	40·4	34·9	28·0	49·2	·154	·161	·170	97	70	85	Calm 0	NE 1	NNE 0·5	10	10	10	—	≋ 1
21	30·271	30·087	29·957	36·9	42·0	36·5	30·1	42·4	·175	·162	·187	83	68	89	ENE 0·5	NNE 0·5	NE 1-2	10	9	10	·006	
22	29·933	29·955	30·010	38·1	44·0	35·2	33·6	43·3	·159	·156	·181	74	**61**	89	ENE 1-2	E 1	NE 0·5	1	5	8	·007	≋ 3
23	30·008	29·976	·066	38·9	42·4	40·3	32·6	46·2	·207	·210	·224	90	81	91	SE 0·5	E 0·5	N 0·5	9	10	10	—	≋ 1·3
24	·106	30·080	·111	39·7	49·5	37·7	35·3	45·2	·219	·240	·207	91	71	92	Calm 0	NE 0·5	NE 0·5	1	8	7	—	≋ 2·3
25	·106	·012	·096	33·9	57·9	46·8	28·7	54·3	·192	·318	·292	99	68	92	Calm 0	SSE 2	SW 0·5	10	1	10	—	≋ 8*a*—midnight.
26	30·093	30·031	30·011	46·9	57·0	44·6	33·1	60·9	·293	·314	·273	92	70	88	SSE 1	SSE 1	SE 1-2	10	8	5	—	≋ 1·3
27	29·972	29·874	29·837	47·0	52·0	46·8	30·6	**61·3**	·301	·306	·279	94	80	89	SE 1	SE 2-3	SE 1-2	10	9	10	·015	≋ $^2_1$
28	·832	·860	·912	47·4	48·8	46·0	30·1	53·3	·314	·321	·306	97	94	99	SW 0·5	NW 0·5	Calm 0	10	10	10	.135	≋ 1
29	·942	·927	·924	46·8	52·8	47·8	44·9	51·6	·306	·308	·298	97	78	91	SE 0·5	SE 1	SE 0·5	10	8	10	·029	≋ 1
30	·821	·621	·673	48·5	48·8	41·6	45·8	54·8	·306	·313	·241	91	92	93	SSE 0·5	SW 0·5	SE 0·5	10	10	2	·520	≋ 1
31	29·571	29·555	29·780	44·8	45·4	42·5	40·6	52·9	·272	·276	·250	92	92	94	SSW 0·5	NW 2	WNW 2-4	10	10	10	**1·035**	
Mean	29·800	29·776	29·825	39·6	45·6	38·7	33·6	48·5	·227	·236	·218	93	79	92	0·8	1·4	0·9	7·2	8·1	6·9	4·208	

APRIL.

Date.	Barometer. Reduced to 32° and Sea Level.			Air Temperature.					Tension of Vapour.			Relative Humidity.			Wind. Direction and Force. Beaufort's Scale.			Amount of Cloud. 0–10.			Rain.	Remarks.
	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Min.	Max.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Measured at 8 a.m.	
1	30·020	30·162	30·245	42·9	48·8	33·4	41·2	51·4	·240	·176	·181	88	58	96	NW 1-3	NW 1	SW 0·5	10	3	0	·016	9 to 10 p.m. Ш 2
2	·197	·118	·149	41·4	49·8	47·4	31·6	50·6	·201	·301	·316	80	86	97	SE 0·5	SSW 2	SW 0·5	5	10	10	·022	
3	·226	·283	·234	47·6	51·6	46·2	40·6	51·6	·278	·205	·294	86	60	95	NNW 1-2	SW 2	SE 0·5	10	3	10	·059	
4	·144	30·105	30·038	51·4	50·9	49·3	45·5	53·8	·352	·342	·338	93	92	97	SSW 2-3	SW 2	SW 4	10	10	10	·015	
5	30·004	29·948	29·930	47·0	49·8	41·9	45·3	54·5	·266	·224	·217	85	67	84	WNW 1-2	W 1	WNW 1-2	9	10	7	·010	≋ 2·3
6	29·910	29·897	30·026	43·8	47·0	35·8	38·7	53·4	·233	·228	·189	83	74	92	NW 1-2	WNW 1-2	NW 1	5	5	1	—	
7	30·122	30·135	·248	41·7	47·0	36·9	31·8	51·2	·206	·200	·177	81	67	84	NE 1	NW 2	ENE 0·5	0	7	0	—	
8	·230	·347	·451	37·9	50·8	35·3	29·6	51·1	·196	·197	·188	88	59	92	SE 0·5	N 1	NE 0·5	0	5	4	—	≋ 3
9	·494	·453	·466	36·5	53·0	43·8	28·8	51·9	·215	·249	·247	100	66	87	NNE 0·5	N 1-2	NE 0·5	10	10	4	—	≋ 1·3
10	·447	·392	·379	44·3	50·4	32·1	35·7	53·8	·238	·199	·171	83	61	96	ENE 1	ENE 1	Calm 0	8	2	0	—	≋ 8*a*-4*p*
11	·297	·185	30·189	35·7	55·3	40·7	28·7	52·3	·206	·260	·237	99	63	94	NE 0·5	NW 0·5	NW 1	9	9	10	—	≋ 1·3
12	30·140	30·019	29·934	37·9	52·3	44·3	34·8	57·4	·225	·274	·259	99	72	90	W 0·5	Calm 0	SW 1	10	10	10	—	≋ 1·3
13	29·809	29·701	·669	47·8	49·6	46·9	37·0	54·0	·278	·310	·293	85	88	92	SE 1	SW 1-2	SE 3-4	10	10	10	·021	≋ 8*a*-4*p*
14	·643	·625	·663	48·2	54·9	50·8	45·8	51·3	·300	·333	·350	90	78	94	ESE 2-3	SE 3-4	SE 0·5	10	5	10	—	≋ 2
15	·639	·619	·620	51·6	64·2	52·6	47·6	56·5	·357	·389	·376	94	65	96	SE 0·5	SE 1	SE 0·5	5	7	7	—	
16	·591	·572	·579	51·8	55·6	49·9	43·9	64·7	·360	324	·359	94	75	100	S 0·5	NNW 1	W 0·5	1	10	10	·475	⚡ 2
17	·576	·579	29·689	46·6	50·4	48·0	45·7	62·5	·302	·352	·326	96	97	98	NW 1	ENE 2	E 0·5	10	10	10	·438	≋ 1·3
18	29·821	29·912	30·060	47·4	61·3	44·1	45·7	50·9	·314	·360	·281	97	68	98	SE 0·5	NW 0·5	NE 0·5	10	3	0	—	≋ 8*a*-4*p*
19	30·166	30·156	·174	49·6	65·2	50·8	39·2	61·8	·263	·285	·360	76	50	97	NE 0·5	NW 0·5	NE 0·5	0	3	10	**·561**	⚡ 3
20	·218	·229	·329	47·2	59·8	45·9	46·4	**65·8**	·309	—	·233	96	—	78	E 0·5	ENE 1	E 0·5	10	1	0	—	
21	·354	·222	·213	47·6	63·7	41·9	36·7	61·1	·316	·249	·253	97	**48**	96	E 0·5	NW 1	E 0·5	0	2	0	—	
22	·158	·044	·083	43·2	51·9	42·9	41·6	64·6	·265	·286	·252	95	76	92	NE 1	NW 1	NW 1	10	10	10	—	≋ 1
23	·144	·125	·168	43·9	47·3	32·5	38·4	54·2	·264	·135	·149	93	52	87	W 0·5	N 2	SE 0·5	2	8	0	—	Ш $^0_3$
24	·143	·107	·196	37·7	40·9	34·4	28·0	46·4	·188	·218	·189	85	87	94	Calm 0	E 0·5	N 0·5	8	10	0	·164	Reading at 4 p.m., 23rd, higher than maximum.
25	·293	·316	·422	38·9	47·0	30·9	28·7	47·5	·179	·161	·142	80	58	87	E 0·5	NE 1	SE 0·5	0	7	0	·004	
26	·436	·387	·372	38·7	48·5	41·9	**27·5**	48·2	·192	·196	·228	85	63	88	SW 0·5	NNW 1-2	N 1	1	10	8	—	≋ $^2_3$
27	·303	·296	·406	47·6	52·8	45·3	37·7	50·8	·258	·373	·260	81	95	87	WNW 1-2	NW 2-3	W 1	10	7	10	—	
28	·381	·311	·297	47·6	51·5	47.8	42·8	54·9	·236	·243	·293	75	68	90	NW 1	NNW 2-4	W 1-2	10	9	7	·008	≋ 3
29	·325	·335	·373	50·3	51·8	48·7	43·4	53·6	·301	·306	·281	84	81	83	ENE 1-2	WNW 3	ENE 1-2	10	10	10	—	≋ 3
30	30·337	30·303	30·304	50·8	53·4	50·4	47·8	56·2	·344	·343	·349	93	84	96	E 1-2	WNW 2-3	W 1	10	10	10	—	≋ 3
Mean	30·119	30·096	30·130	44·8	52·6	43·1	38·5	54.6	·263	·266	·260	89	71	92	1·0	1·5	0·9	6·8	7·2	5·9	1·793	

Notes.—Min. and max. temps. read at 8 a.m. Tension of Vapour obtained from Kämtz's tables. Dorpat, 1868.

MAY.

Date.	Barometer. Reduced to 32° and Sea Level.			Air temperature.					Tension of Vapour.			Relative Humidity.			Wind. Direction and Force. Beaufort Scale.			Amount of Cloud. 0-10.			Rain.	Remarks.
	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Min.	Max.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Measured at 8 a.m.	
	ins.	ins.	ins.	°	°	°	°	°	ins.	ins.	ins.	%	%	%							ins.	
1	30·285	—	—	51·8	—	46·8	47·3	61·4	·247	—	.250	68	—	87	WNW 1	WSW 1	ESE 0·5	7	6	10	·003	
2	30·161	29·965	29·901	51·8	54·0	47·0	44·6	58·7	·293	·238	·289	78	61	91	WNW 1-2	W 4	W 3	7	8	9	·009	
3	29·893	·908	·929	48·0	52·3	39·9	44·5	57·2	·241	·218	·210	75	61	87	WNW 1-4	W 4	E 0·5	7	5	6	·029	
4	·827	·656	·450	43·9	47·6	44·4	32·6	55·6	·234	·288	·255	83	89	88	Calm 0	NW 0·5	W 0·5	9	10	10	·305	
5	·417	·450	·487	41·9	49·8	38·4	39·7	49·9	·212	·177	·198	83	57	87	NW 0-5	NW 3	WNW 1	10	5	3	—	≋ 1
6	·462	·500	·544	46·9	43·9	43·4	35·0	53·1	·222	·255	·262	73	90	94	WNW 3-4	NW 1-2	NW 0·5	9	10	10	**·442**	
7	·453	·350	·514	44·8	51·4	43·4	40·9	50·0	·268	·276	·269	91	75	96	SE 0·5	WNW 2-3	NW 1-2	10	7	10	·216	≋ 3
8	29·656	29·773	29·892	50·9	54·6	47·4	42·4	54·3	·295	·273	·298	81	67	92	SW 0·5	NW 2	WNW 1-2	8	9	9	·017	
9	30·003	30·048	30·086	50·3	56·8	44·5	44·0	57·1	·275	·189	·254	78	**49**	88	W 1	WNW 0·5	SE 0·5	8	1	10	·005	
10	·057	·046	·044	50·1	56·6	53·8	42·8	58·7	·331	·428	·412	92	94	99	SE 0·5	WSW 1-2	W 0·5	10	10	10	·213	≋ $^2_1$
11	·125	·184	·260	54·2	57·6	43·9	49·6	58·0	·360	·327	·272	86	71	95	W 0·5	SE 0·5	E 0·5	8	5	0	—	
12	·261	·196	·202	48·8	63·8	49·3	41·6	61·2	·308	·272	·324	90	51	93	E 0·5	SE 0·5	E 0·5	10	8	9	—	○$^{\circ}_2$ ≋ *8a* midt.
13	·211	·170	·209	53·3	62·5	42·9	45·2	65·0	·250	·246	·215	65	**49**	82	W 0·5	E 1	Calm 0	5	6	0	—	≋ 2
14	·185	30·113	30·085	53·9	62·7	48·4	36·3	64·5	·299	·329	·252	73	60	77	SE 1	SE 0·5	SE 0·5	0	4	9	—	≋ *8a* midnight.
15	30·051	29·987	29·981	54·8	62·4	52·3	43·1	65·8	·250	·316	·307	62	58	79	E 0·5	SSW 1	S 0·5	1	5	10	—	≋ $^2_2$
16	29·915	·783	·713	53·0	61·1	46·9	47·9	65·3	·292	·247	·280	74	51	89	W 1	E 1	SE 1-2	10	5	6	—	≋ *8a* midnight.
17	·626	·657	29·774	49·8	47·9	43·9	45·0	65·2	·286	·284	·274	82	87	96	ESE 1	NE 1	NNW 1	10	10	10	·368	≋ 1
18	29·835	29·901	30·055	42·3	48·6	36·9	41·4	53·4	·239	·214	·186	90	67	87	NNE 1-2	W 1	NW 0·5	10	8	0	—	
19	30·123	30·170	30·238	44·9	54·1	39·1	**30·6**	50·0	·170	·173	·211	64	50	90	NNE 0·5	NW 0·5	SE 0·5	1	4	1	—	
20	30·170	30·017	29·968	48·0	50·9	52·8	30·8	55·1	·248	·345	·373	77	93	94	SE 1-2	S 3-4	W 0·5	10	10	10	·129	≋ 1
21	29·992	29·980	·915	54·6	59·3	48·8	47·8	56·8	·334	·278	·292	79	58	86	SW 0·5	SW 1	SE 0·5	8	6	10	·016	
22	·898	·961	29·736	53·5	58·5	51·0	46·4	61·0	·312	·255	·349	77	57	94	WSW 3-4	WSW 2	S 1	5	5	10	·066	
23	29·721	29·881	30·125	54·8	55·3	39·4	49·8	59·8	·343	·286	·214	80	68	90	WSW 3-6	NW 2	NW 0·5	7	9	2	·029	
24	30·185	30·235	30·287	52·1	56·0	41·1	37·6	61·5	·260	·262	·238	70	62	94	NE 1	NE 1-2	Calm 0	6	8	0	—	
25	30·232	30·099	29·956	53·0	53·8	50·3	36·1	58·4	·292	·267	·327	74	67	90	SSE 0·5	E 1	SE 0·5	10	9	10	—	≋ 1
26	29·887	29·768	29·712	53·7	55·9	50·3	46·8	56·7	·306	·277	·327	75	65	90	E 1	WSW 3-4	SW 2-5	6	9	9	·190	
27	29·775	29·974	30·170	53·8	61·7	47·2	48·6	61·4	·365	·366	·314	88	69	97	WSW 2-3	NW 0·5	SE 0·5	10	9	1	—	
28	30·298	30·331	·390	49·9	66·1	49·4	42·5	62·9	·349	·364	·333	97	59	95	Calm 0	W 0·5	Calm 0	9	6	2	—	≋ *8a-4p* Ш$_3$
29	·407	·345	·338	57·7	69·7	52·4	44·8	67·2	·386	·370	·365	82	53	93	Calm 0	SW 0·5	SSW 0·5	6	4	6	—	≋ 3
30	·317	·236	·247	55·0	68·3	49·0	45·5	71·2	·349	·430	·324	82	62	94	SE 0·5	W 0·5	SW 0·5	4	8	3	—	≋ 2·3
31	30·237	30·242	30·252	55·8	55·8	48·2	46·5	**71·4**	·380	·388	·329	87	88	98	SW 0·5	NW 1	NW 0·5	10	10	10	·061	≋ 1
Mean	29·989	29·964	29·982	50·9	56·6	46·2	42·5	59·6	·290	·288	·284	79	66	91	1·1	1·5	0·8	7·5	7·1	6·6	2·098	

JUNE.

1	30·221	30·159	30·230	55·7	67·9	55·4	47·0	60·8	·362	·309	·361	83	49	83	SE 0·5	W 0·5	ESE 0·5	3	8	9	—	
2	·216	30·171	30·093	55·2	64·9	53·2	45·5	69·3	·310	·255	·369	73	**47**	91	SE 0·5	SE 1	NE 0·5	0	1	2	·022	Ꞧ^3
3	30·004	29·891	29·848	56·8	65·5	54·6	43·8	66·5	·395	.303	·344	86	52	81	ENE 1	SE 1	NE 1	5	1	0	·031	≋ 3
4	29·850	·841	29·909	53·9	62·8	47·8	51·6	66·7	·384	·325	·316	92	59	96	SE 0·5	Calm 0	N 0·5	9	5	1	·240	Ꞧ^2
5	29·957	29·985	—	53·1	64·7	—	46·6	64·3	·384	·439	—	95	72	—	NE 0·5	Calm 0	—	5	8	—	·041	≋ *8a-4p*
6	30·216	30·264	30·392	54·0	64·7	46·9	49·6	68·5	·335	·317	·293	81	55	92	NW 1-2	NE 1	SW 0·5	10	2	1	—	≋ 1
7	·413	·374	·392	54·7	64·9	54·3	49·6	66·3	·323	·364	·375	76	61	89	W 0·5	NW 1	WNW 1-2	1	3	10	—	Reading at Midt.,6th, lower than min.
8	·351	30·284	30·209	54·2	61·8	50·8	52·6	67·3	·332	·376	·348	79	70	94	NE 0·5	ENE 0·5	SW 1	10	9	10	—	≋ 1
9	30·108	29·923	29·657	53·5	59·8	53·8	48·5	63·7	·345	·360	·368	84	71	89	W 1-2	NW 0·5	SW 1-2	10	10	10	·097	
10	29·587	·578	·581	54·2	57·4	46·5	50·3	61·9	·318	·279	·273	77	62	88	WSW 1-2	WSW 1-2	SW 0·5	6	7	0	·002	
11	·567	·494	·505	53·0	54·8	50·1	43·0	60·8	·297	·360	·348	75	84	97	SW 0·5	SW 0·5	N 0·5	7	10	9	**·270**	
12	·576	·615	·720	50·7	57·4	49·1	48·5	60·9	·345	·350	·327	94	75	94	W 0·5	SW 0·5	NE 0·5	10	9	8	·048	
13	·730	·699	·726	52·6	58·5	51·0	44·2	61·2	·300	·324	·341	77	69	92	SW 0·5	W 1	SE 0·5	9	9	10	·049	
14	·766	·797	·853	51·8	59·1	48·2	49·5	61·1	·365	·307	·303	95	64	91	W 0·5	NW 0·5	SE 0·5	10	8	3	—	≋ $^2_1$
15	·864	·866	·925	52·9	58·7	50·9	42·0	61·6	·339	·316	·373	86	67	100	W 0·5	E 0·5	SW 0·5	7	6	5	—	
16	·944	·924	·947	56·0	62·9	50·6	**40·8**	62·1	·336	·413	·355	76	73	97	SE 0·5	SW 1-2	E 1-2	1	9	6	—	
17	·927	·876	·869	60·5	64·4	54·8	40·9	66·4	·417	·389	·426	80	65	99	SW 1-2	SSE 1-2	SW 1	9	10	7	·068	≋ 2
18	·928	·916	29·793	59·7	64·9	54·0	49·5	67·5	·428	·407	·414	84	67	99	SSW 1-2	SE 1-3	ESE 1·4	4	10	10	·121	≋ 2 { Reading at Midt., 18th, lower than minimum.
19	29·729	29·720	30·091	61·5	61·1	54·1	56·8	68·8	·464	·438	·342	85	82	82	SE 1-2	WSW 1-3	W 1	10	10	8	—	≋ $^2_3$
20	30·093	30·050	·160	59·0	69·7	58·0	48·7	64·1	·409	·542	·472	83	74	98	ESE 1	W 1	WSW 1	6	10	7	—	≋ 3
21	30·194	30·126	·086	60·5	73·1	62·5	56·8	72·6	·437	·522	·515	83	64	91	SW 0·5	W 1	E 0·5	9	5	10	·102	≋ 3
22	29·948	29·995	30·068	57·9	62·7	51·7	57·4	**74·6**	·447	·301	·356	93	56	93	SW 1-2	WSW 1-4	W 0·5	9	4	0	—	
23	30·079	30·047	29·996	56·5	60·1	57·4	45·8	64·5	·362	·373	·456	80	73	97	W 1	WSW 0·5	SW 1-2	10	10	10	·245	≋ $^2_3$
24	29·904	29·890	29·918	57·9	59·1	53·5	53·8	61·2	·468	·388	·345	97	78	84	W 1-2	W 1-3	WSW 1-4	10	10	10	·051	≋ 1
25	30·036	30·232	30·290	55·1	64·7	52·6	52·5	63·5	·376	·294	·347	87	52	88	SW 1-3	WNW 1-2	W 1	9	7	8	·036	≋ 3
26	·172	·145	30·169	57·7	61·0	58·6	51·6	64·2	·443	·439	·436	93	82	88	W 1-3	WNW 1-2	SW 1-3	10	9	10	—	≋ $^2_1$
27	30·082	·007	29·916	59·7	62·1	57·6	57·0	63·5	·490	·414	·448	96	75	94	WSW 1-2	SW 1-4	WSW 1-3	10	10	10	—	≋ ^{2}*8a* midnight.
28	29·929	30·029	30·028	56·6	63·1	49·2	53·9	65·1	·401	·398	·336	88	70	97	NW 1-2	W 0·5	Calm 0	10	8	4	·002	≋ 1·3
29	·955	29·876	29·929	52·9	62·3	49·8	43·3	64·4	·359	·373	·347	90	68	97	Calm 0	Calm 0	Calm 0	10	10	0	·003	≋ 1·2
30	29·993	29·999	30·034	56·9	63·5	55·5	46·6	63·4	·409	·319	·396	88	57	90	SW 0·5	WSW 1	SW 0·5	10	4	10	—	≋ 1
Mean	29·978	29·959	29·977	55·8	62·6	52·8	48·7	64·9	·379	·366	·370	85	66	92	1·0	1·0	0·9	7.6	7·4	6·5	1·428	

NOTES.—Min. and Max. temps. read at 8 a.m. Tension of Vapour obtained from Kämtz's tables. Dorpat, 1868.

JULY.

Date.	Barometer. Reduced to 32° and Sea Level.			Air Temperature.					Tension of Vapour.			Relative Humidity.			Wind. Direction and Force. Beaufort Scale.			Amount of Cloud. 0–10.			Rain.	Remarks.
	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Min.	Max.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	8 a.m.	4 p.m.	Midt.	Measured at 8 a.m.	
	ins.	ins.	ins.	°	°	°	°	°	ins.	ins.	ins.	%	%	%							ins.	
1	30·056	30·030	29·995	57·9	64·5	57·3	53·6	65·7	·434	·410	·412	90	68	88	Calm 0	W 0·5	SE 0·5	6	9	10	·052	
2	29·894	29·791	·669	59·7	67·2	58·9	55·5	66·2	·471	·543	·472	92	81	95	NW 0·5	SE 0·5	ESE 1	9	7	10	·195	
3	·602	·567	·552	55·5	64·2	51·3	54·4	70·2	·417	·281	·318	95	51	85	SW 1-2	WSW 1-2	E 1-2	10	5	5	·032	
4	·543	·705	·733	52·2	62·5	49·5	50·3	65·2	·322	·249	·313	83	**49**	90	SW 1-2	WSW 1-2	E 0·5	8	3	4	·092	≋ 3
5	·578	·447	·579	55·8	60·2	51·6	48·7	63·8	·430	·470	·365	96	90	96	SW 0·5	W 0·5	WSW 1-3	10	10	3	·129	≋ 1
6	·783	·848	·864	55·8	61·7	55·1	47·8	67·5	·352	·343	·373	81	65	87	W 1-2	S 0·5	ESE 1-3	8	9	8	·020	
7	·779	29·837	29·930	61·2	60·7	54·5	54·6	64·3	·362	·498	·410	69	94	97	ESE 1-4	SW 1-2	SE 0·5	4	10	3	·212	
8	29·965	30·005	30·069	56·7	64·2	54·8	52·3	64·5	·403	·335	·369	88	58	86	SE 0·5	SW 1-2	ESE 0·5	8	6	8	—	
9	30·066	29·980	29·777	56·9	59·8	57·7	52·8	67·2	·374	·399	·446	81	79	94	SW 1	WSW 1	SW 1-2	9	10	10	·133	
10	29·855	·869	·857	56·2	57·7	53·8	52·8	66·8	·370	·349	·357	82	74	87	W 1-3	W 1	WSW 0·5	9	9	9	·021	
11	·792	·697	·685	54·0	60·2	51·0	51·4	61·8	·351	·315	·343	84	63	92	SW 0·5	WSW 1-2	SE 0·5	10	5	9	·061	
12	·611	·556	·583	54·8	53·0	49·6	46·8	62·2	·340	·357	·342	79	89	97	SW 1	SW 0·5	SE 0·5	6	7	9	·334	
13	·569	·515	·573	53·6	60·7	47·0	47·7	61·5	·357	·331	·312	87	64	97	SW 0·5	NW 0·5	E 0·5	6	5	4	—	
14	·582	·582	29·633	53·8	54·8	51·8	**43·3**	63·2	·346	·343	·347	84	80	90	WNW 1	SW 0·5	W 1	4	9	10	·070	≋ 3
15	29·710	29·861	30·028	56·5	62·8	47·3	50·8	61·5	·365	·325	·308	80	59	95	W 1-3	WNW 1-4	E 0·5	9	6	0	·090	
16	30·095	30·051	29·977	54·1	66·2	56·9	43·5	64·4	·367	·338	·430	88	55	93	SW 0·5	SE 0·5	ESE 1-2	3	7	9	·103	≋ $^{2}_{3}$
17	29·858	29·748	29·781	62·7	58·2	56·7	53·6	67·5	·519	·473	·406	91	97	88	WNW 1-3	W 1-4	SW 0·5	10	8	8	**·882**	≋ $^{2}_{1}$
18	29·815	30·060	30·164	56·3	60·5	52·6	53·8	66·5	·405	·266	·322	89	56	82	WNW 0·5	NW 0·5	W 1-2	8	6	7	·002	≋ $^{2}_{3}$
19	30·128	·026	·028	54·8	66·2	62·5	51·6	64·2	·357	·499	·505	83	78	89	W 1-2	WSW 1	SW 1-2	10	10	8	·032	≋ 8*a*—midnight.
20	·009	30·027	30·073	66·1	75·6	57·7	53·9	67·5	·559	·596	·427	87	66	90	SE 1-3	SW 0·5	SE 1	10	6	0	—	≋ 1
21	30·032	29·965	29·937	63·7	77·1	60·5	54·1	76·6	·455	·462	·456	78	51	87	SSE 0·5	SSE 1	SE 1	0	1	5	—	
22	29·937	29·932	·992	62·5	72·5	58·7	57·3	**78·4**	·475	·549	·469	84	68	95	W 0·5	W 0·5	WSW 0·5	9	10	10	—	≋ 2·3
23	30·001	30·002	·954	59·5	68·6	55·4	53·8	75·0	·448	·335	·395	89	50	90	SW 0·5	SW 0·5	SE 0·5	6	5	5	·064	
24	29·823	29·808	·841	61·3	63·2	55·9	54·5	69·8	·493	·518	·427	91	89	93	SSE 0·5	SSW 0·5	WSW 0·5	7	10	9	·306	≋ 1
25	·872	·827	·871	56·5	66·7	56·5	53·2	71·5	·403	·398	·414	88	62	91	SW 0·5	SW 0·5	E 0·5	10	7	10	·009	≋ 1·3
26	·896	·896	·918	57·9	63·7	54·8	54·4	68·3	·395	·377	·406	82	65	94	SW 0·5	WSW 2	W 0·5	7	8	9	·015	
27	·876	·863	·975	57·9	57·7	54·2	56·8	66·5	·422	·433	·406	88	91	97	WSW 0·5	NW 0·5	W 0·5	9	9	9	·621	Reading at midnight, 26th, lower than minimum.
28	·987	·947	·912	58·4	61·3	54·8	52·7	64·3	·385	·442	·409	79	82	95	W 0·5	Calm 0	SE 1	8	10	10	·383	
29	·891	·809	·797	55·9	63·3	56·9	54·1	64·5	·423	·383	·445	94	67	96	SSW 1	SW 1-2	ENE 0·5	10	10	4	·159	
30	·801	·791	29·804	58·7	64·2	58·4	52·6	66·2	·454	·439	·452	92	73	92	ESE 0·5	SW 1-2	Calm 0	10	7	10	·160	≋ $^{2}_{1}$
31	29·804	29·922	30·078	58·7	63·8	55·2	53·1	67·1	·432	·388	·392	87	67	90	W 0·5	W 2	W 0·5	5	4	7	·010	
Mean	29·845	29·838	29·859	57·6	63·3	54·8	52·1	66·8	·409	·401	·395	86	70	92	0·9	1·0	0.8	7·7	7·4	7·2	4·187	

AUGUST.

Date.	Barometer 8 a.m.	Barometer 4 p.m.	Barometer Midt.	Air Temp. 8 a.m.	Air Temp. 4 p.m.	Air Temp. Midt.	Min.	Max.	Vapour 8 a.m.	Vapour 4 p.m.	Vapour Midt.	Humidity 8 a.m.	Humidity 4 p.m.	Humidity Midt.	Wind 8 a.m.	Wind 4 p.m.	Wind Midt.	Cloud 8 a.m.	Cloud 4 p.m.	Cloud Midt.	Rain	Remarks.
1	30·139	30·177	30·212	58·0	63·9	54·8	56·8	66·4	·394	·354	·389	82	61	90	WSW 0·5	W 1	W 1	7	5	7	·039	≋ 3 Reading at midnight, July 31, lower than min.
2	·199	·169	·149	57·9	60·3	57·5	53·4	65·5	·444	·462	·458	93	89	97	WNW 0·5	WSW 1	WSW 0·5	6	10	10	·039	
3	30·176	30·150	30·094	57·5	65·4	55·4	52·8	64·8	·389	·334	·377	83	**55**	87	SW 0·5	W 1	SE 0·5	8	2	10	·280	
4	29·886	29·883	29·968	58·4	66·7	52·2	52·9	67·2	·476	·476	·370	98	73	95	SSW 0·5	SW 0·5	SE 0·5	10	7	8	·009	≋ 3
5	·987	·903	29·874	54·6	67·2	58·8	50·3	68·4	·397	·410	·437	93	62	88	Calm 0	SW 1	WSW 1-2	5	6	10	·021	≋ 2
6	29·886	29·955	30·019	60·5	64·7	61·2	54·0	68·5	·501	·493	·505	95	80	93	WNW 1-2	W 2-3	WNW 2-3	10	10	10	—	≋ $^{2}_{1}$
7	30·085	30·056	·011	61·4	70·1	60·9	59·9	67·7	·513	·464	·467	95	64	87	W 0·5	WSW 2	WSW 1	10	5	10	·013	≋ 1·3
8	29·941	29·970	·003	58·9	61·5	50·5	58·3	**72·5**	·472	·395	·332	95	74	91	W 0·5	WSW 0·5	W 0·5	10	9	6	·198	≋ 2
9	30·055	30·140	30·183	54·5	62·7	54·2	49·4	62·8	·331	·295	·341	78	56	81	WNW 1-2	W 2-3	W 1	3	4	10	·049	
10	30·119	29·950	29·958	52·8	57·7	55·9	51·5	64·0	·377	·433	·417	94	91	94	SW 0·5	SW 1	SW 1	10	10	10	·104	
11	29·991	·996	30·034	55·5	63·0	57·8	52·3	59·8	·417	·452	·460	95	79	96	W 0·5	WSW 2	SW 0·5	10	9	10	·059	
12	30·021	29·860	29·812	57·0	67·4	58·7	54·8	65·0	·405	·479	·454	87	71	92	WNW 0·5	WSW 3	W 3-4	8	10	10	·119	
13	29·922	30·019	30·003	57·7	60·9	56·1	54·4	69·2	·375	·348	·411	79	67	91	W 1-3	WSW 2-3	SW 2-3	3	10	10	·029	
14	30·086	30·057	30·061	57·4	65·5	55·0	50·6	64·9	·420	·374	·403	89	61	93	SW 0·5	SW 0·5	W 0·5	4	6	9	—	
15	30·000	29·893	29·840	56·6	65·5	63·1	51·6	68·1	·410	·550	·512	89	87	89	SW 0·5	SE 0·5	SE 0·5	10	10	10	·140	
16	29·737	·950	30·083	59·4	55·2	48·8	55·5	67·3	·426	·313	·299	85	74	88	ESE 0·5	WNW 3-5	E 0·5	5	8	1	·209	▲ 2
17	30·070	·911	29·713	53·1	56·4	53·4	46·6	63·4	·341	·410	·390	85	90	96	SW 0·5	SSW 2-3	SE 1-2	10	10	10	·223	
18	29·635	·615	·722	54·6	58·8	54·8	49·2	57·8	·386	·406	·392	90	82	91	W 0·5	W 0·5	W 1	5	8	10	·038	
19	·758	·799	·757	54·5	60·0	51·5	53·4	64·1	·373	·275	·337	88	58	89	WNW 1-2	W 0·5	Calm 0	10	5	10	·173	
20	·527	·565	·661	56·0	61·5	52·8	50·6	62·7	·445	·387	·374	99	72	95	SE 0·5	W 1	E 0·5	10	8	5	·035	
21	·695	·710	·746	55·5	58·5	53·3	50·0	63·8	·393	·372	·395	90	77	97	SW 0·5	SW 0·5	Calm 0	10	10	7	·032	
22	·781	·762	·746	54·8	64·1	54·2	49·0	62·8	·412	·390	·383	96	66	91	SE 0·5	SW 1	SE 1	8	9	7	·050	
23	·692	·641	·733	55·8	59·7	52·6	53·5	66·0	·383	·421	·379	87	83	96	SSW 1	ESE 2-4	SE 0·5	10	10	8	**1·520**	
24	·860	·836	·776	50·1	59·6	57·8	45·8	61·0	·359	·475	·448	99	93	94	W 0·5	Calm 0	SE 3	10	10	10	·443	≋ 8*a*-4*p*
25	·829	·828	·744	57·1	65·2	57·6	49·4	60·8	·436	·375	·448	93	61	95	ESE 0·5	SE 1-2	SE 0·5	10	6	10	·324	≋ $^{2}_{1}$
26	·636	·587	·693	55·6	61·9	56·8	53·3	68·4	·421	·477	·434	96	86	95	W 0·5	SSW 1	SW 1-2	5	7	10	·070	
27	·691	·481	·352	57·3	59·7	51·4	51·8	64·5	·401	·437	·355	85	86	94	W 1	SE 1-3	SE 0·5	0	10	5	·396	
28	·382	·376	·719	52·8	53·0	48·8	50·6	66·7	·396	·289	·284	99	74	84	WNW 1	NW 3-5	SW 1	9	10	8	·179	
29	·681	·776	·782	51·8	58·2	46·8	45·8	59·3	·333	·344	·299	87	73	94	WSW 1-2	WNW 2-3	E 0·5	1	9	3	·002	≋ 3
30	·764	·766	·769	52·6	60·9	56·8	**45·4**	61·2	·390	·432	·446	99	82	96	Calm 0	SW 0·5	SW 0·5	7	10	10	·076	
31	29·760	29·634	29·677	56·8	66·0	56·8	51·9	62·8	·455	·523	·387	98	82	84	WSW 0·5	SW 1-2	SW 2-5	10	9	9	·064	
Mean	29·870	29·852	29·868	56·0	62·0	55·0	51·7	64·8	·409	·408	·399	91	74	92	0·7	1·5	1·1	7·5	8·1	8·5	4·933	

NOTES.—Min. and max. temps. read at 8 a.m. Tension of Vapour obtained from Kämtz's tables. Dorpat, 1868.

SEPTEMBER.

Date.	Barometer. Reduced to 32° and Sea Level. 8 a.m.	4 p.m.	Midt.	Air Temperature. 8 a.m.	4 p.m.	Midt.	Min.	Max.	Tension of Vapour. 8 a.m.	4 p.m.	Midt.	Relative Humidity. 8 a.m.	4 p.m.	Midt.	Wind. Direction and Force. Beaufort Scale. 8 a.m.	4 p.m.	Midt.	Amount of Cloud. 0—10 8 a.m.	4 p.m.	Midt.	Rain. Measured at 8 a.m.	Remarks.
	ins.	ins.	ins.	°	°	°	°	°	ins.	ins.	ins.	%	%	%							ins.	
1	29·655	29·699	29·852	55·8	55·8	51·8	53·2	67·8	·395	·361	·341	89	82	89	W 1-2	NW 1-3	WSW 1-2	8	10	9	·075	
2	29·945	30·019	30·121	51·2	57·2	48·6	48·5	61·9	·319	·300	·300	86	66	89	W 1-2	NW 1-2	W 0·5	9	7	10	·001	
3	30·160	·188	·248	50·8	55·0	48·7	47·4	60·2	·344	·263	·286	93	65	85	WNW 0·5	NW 1-2	NW 0·5	9	9	7	·007	
4	·274	·262	·278	50·3	55·5	47·5	46·4	58·7	·337	·319	·287	93	74	89	W 0·5	NW 0·5	NW 0·5	10	9	3	—	≋ 1·3
5	·291	·261	30·250	50·7	55·9	49·2	46·4	56·8	·315	·277	·281	86	65	82	WNW 0·5	NW 2	NW 0·5	9	9	9	—	
6	30·151	30·019	29·874	49·0	52·0	47·5	46·0	57·7	.311	·314	·320	91	82	98	NNW 1	NW 0·5	E 0·5	10	10	10	·098	≋ $^{2}{}_{1}$
7	29·743	29·750	·826	48·8	58·8	51·0	46·4	55·7	·321	·317	·354	94	67	95	ENE 0·5	N 0·5	NNW 0·5	10	5	10	·005	
8	·863	·849	·781	48·2	56·9	51·8	45·8	59·5	·337	·368	·360	100	80	94	Calm 0	Calm 0	SE 0·5	10	10	10	·188	≋ $^{2}{}_{1}$
9	·532	·518	·589	54·8	59·1	52·4	48·7	59·8	.423	·382	·341	98	75	87	WSW 1	W 2-4	SW 1-4	10	9	9	·074	
10	·663	·680	·669	54·9	56·7	48·8	50·9	60·7	·367	·325	·328	86	73	96	NNW 1-2	W 3-4	SW 0·5	5	9	7	·057	
11	·732	·696	·760	50·5	56·8	51·2	43·7	60·1	·324	·371	·341	89	81	91	WSW 1	W 3	SW 1-2	1	5	8	·021	
12	·802	·840	·859	50·4	59·7	50·2	47·6	60·2	·320	.308	·333	88	63	92	SW 0·5	SW 0·5	Calm 0	0	7	10	—	≋ 2
13	·823	·741	·626	48·5	50·4	47·4	44·4	62·2	·319	·300	·291	94	83	90	Calm 0	NE 0·5	WSW 0·5	10	10	10	·889	≋ 1
14	·473	·401	·246	50·0	55·0	45·4	46·2	56·5	·347	·305	·290	97	73	97	SW 0·5	WSW 2	NW 0·5	10	9	10	·544	≋ 2
15	·403	·647	·775	48·2	58·7	47·0	44·5	56·0	·324	·302	·281	97	64	89	— 1	— 3-4	— 0·5	9	6	7	·006	≋ 3
16	·788	·770	·732	49·8	57·2	54·8	44·4	60·3	·344	·429	·409	97	91	95	— 0·5	Calm 0	— 0·5	10	10	10	·022	≋ 8*a*-4*p*
17	·597	·705	29·857	57·9	59·3	48·9	49·4	59·2	·456	·355	·293	94	72	86	W 1-2	WSW 4	WSW 1-2	10	3	6	·056	
18	29·866	·940	30·051	49·8	54·8	48·4	46·0	61·2	·304	·266	·300	86	65	90	SW 0·5	WSW 2-3	W 0·5	4	4	5	·003	≋ 1
19	30·037	29·867	29·871	49·6	57·7	60·7	46·9	58·5	·328	·436	·479	93	92	90	SW 0·5	SE 0·5	SE 1-3	10	10	10	·158	≋ $^{2}{}_{1}$
20	29·866	30·008	30·189	59·5	55·1	50·4	46·9	62·7	·495	·413	·341	98	89	94	WSW 1	WSW 1	Calm 0	10	9	8	·016	≋ 2
21	30·382	·467	·559	43·9	57.2	37·5	41·9	60·7	·279	·393	·215	98	84	96	Calm 0	NE 0·5	Calm 0	6	2	0	·002	
22	·588	·518	·505	36·1	60·3	44·5	32·4	58·3	·311	·278	·276	100	**57**	95	ENE 0·5	E 0·5	SE 0·5	3	1	1	—	≋ 3
23	·464	·393	·379	40·4	61·9	50·6	35·6	60·5	·243	·338	·333	98	63	91	Calm 0	SW 0·5	E 0·5	2	7	6	—	≋ 8*a* midnight.
24	·347	·224	·177	42·6	65·1	48·8	39·5	63·2	·267	·341	·305	98	**57**	90	Calm 0	SE 1	Calm 0	0	4	0	—	≋ 2
25	·157	30·101	30·098	52·6	60·1	56·8	41·7	66·3	·368	·413	·446	94	80	96	SE 1	SE 1	SE 0·5	0	8	10	—	≋ 2
26	30·055	29·882	29·807	57·0	62·4	56·3	51·8	62·7	·423	·390	·400	91	70	88	ESE 1	SE [illegible]-4	SE 2	10	8	1	—	≋ 2·3
27	29·752	29·727	29·899	59·5	64·1	48·8	55·0	63·3	·461	·466	·321	91	78	94	ESE 1-3	SSW 1	SW 0·5	8	9	10	·070	
28	30·094	30·199	30·282	39·9	53·5	36·5	38·2	**68·5**	·216	·257	·208	90	66	97	SE 0·5	SW 0·5	SE 0·5	0	4	0	—	Afternoon readings taken at 5.30 p.m.
29	30·265	30·131	30·055	33·6	55·8	45·8	**31·7**	58·3	·192	·239	·241	100	59	81	NE 0·5	SE 0·5	SE 1	0	6	5	·092	≋ $^{2}{}_{2\cdot3}$
30	29·897	29·779	29·736	55·8	58·7	57·9	33·0	57·5	·377	·466	·468	77	95	97	SW 0·5	SSE 3	SE 1·2	10	10	10	**1·677**	
Mean	29·956	29·943	29·965	49·7	57·6	49·5	44·7	60·5	·339	·343	·326	93	74	91	0.7	1.5	0.8	6.8	7.3	7.0	4·061	

OCTOBER.

Date.	Barometer. 8 a.m.	4 p.m.	Midt.	Air Temperature. 8 a.m.	4 p.m.	Midt.	Min.	Max.	Tension of Vapour. 8 a.m.	4 p.m.	Midt.	Relative Humidity. 8 a.m.	4 p.m.	Midt.	Wind. 8 a.m.	4 p.m.	Midt.	Amount of Cloud. 8 a.m.	4 p.m.	Midt.	Rain. Measured at 8 a.m.	Remarks.
1	29·762	29·813	29·863	59·7	66·0	60·4	52·2	60·8	·502	·442	·503	98	85	96	SE 0·5	S 0·5	SE 1	10	10	10	·281	≋ 1
2	·854	·820	·778	59.8	62·6	58·7	58·4	**67·8**	·508	·540	·478	99	95	97	SSW 0·5	SE 0·5	SE 0·5	10	10	10	**·873**	
3	29·661	29·736	29·991	59·3	58·5	55·8	56·4	64·5	·495	·475	·418	98	97	95	ESE 0·5	WNW 3-5	NW 1	10	10	10	·231	≋ $^{2}{}_{1}$
4	30·137	30·120	30·122	46·7	56·7	39·9	46·0	62·5	·267	·266	·238	86	**62**	98	NE 0·5	WNW 0·5	SE 0·5	0	0	2	·003	≋ 3
5	30·061	30·106	30·098	46·0	54·2	47·0	38·9	57·5	·297	·346	·301	97	82	94	SE 0·5	NW 0·5	Calm 0	10	10	10	·011	≋ $^{2}{}_{1}$
6	29·830	29·576	29·758	52·0	54·4	42·6	45·4	55·2	·371	·383	·253	96	90	94	ESE 0·5	SW 2-3	SW 0·5	10	10	8	·148	≋ $^{2}{}_{3}$
7	·757	·725	·793	39·8	45·9	35·5	37·6	55·6	·240	·237	·202	98	80	98	SW 0·5	NNW 1	SW 0·5	4	10	1	·016	
8	·864	·907	·868	42·0	48·3	40·7	33·4	51·3	·233	·225	·230	89	70	92	SSW 0·5	NW 0·5	SE 0·5	2	0	10	·238	≋ $^{2}{}_{3}$
9	·597	·509	·510	45·6	55·3	56·8	38·6	53·0	·287	·411	·446	95	94	96	SSW 1-2	WSW 2-3	W 2	10	10	10	·329	
10	·567	·491	·556	55·1	59·9	51·8	44·7	58·6	·365	·449	·306	85	87	81	W 1-3	WSW 3-4	SW 4-5	1	10	7	·115	
11	·547	·608	·724	50·4	51·8	45·2	49·3	61·7	·296	·280	·268	82	75	90	SE 0·5	WSW 1-2	WSW 1	10	9	2	·003	≋ 8*a*-4*p*
12	·661	·631	·675	41·6	54·7	38·7	39·4	53·8	·255	·262	·227	98	65	98	SW 0·5	SSE 0·5	Calm 0	7	6	6	·045	≋ 1·3 ⚡ 3
13	·692	·759	·861	42·6	46·8	35·0	35·0	56·6	·265	·245	·200	98	79	98	W 0·5	NW 2	E 0·5	8	7	4	·063	≋ $^{2}{}_{3}$
14	·891	·914	·977	40·9	50·3	33·4	34·6	52·8	·248	·237	·188	98	69	98	SW 0·	NW 0·5	SE 0·5	10	3	0	·031	
15	·966	·902	29·894	30·1	50·2	48·5	29·3	52.0	·150	·263	·323	97	75	94	NNW 0·5	S 0·5	S 0·5	0	9	10	·011	
16	29·933	29·969	30·056	50·6	53·9	47·6	29·6	52·0	·363	·358	·306	99	87	94	SSE 0·5	WSW 1	E 0·5	10	10	10	—	
17	30·073	30·019	29·975	47·9	54·9	52·6	46·6	56·4	·328	·351	·371	99	81	94	ESE 0·5	SW 0·5	SE 0·5	10	9	10	·057	
18	·000	·082	30·234	50·9	55·8	40·4	47·4	56·3	·362	·305	·243	97	71	98	W 0·5	WSW 0·5	Calm 0	9	4	2	·005	≋ 2
19	·279	·145	29·833	38·4	52·8	49·2	36·7	58·5	·229	·279	·320	99	72	92	SW 0·5	SW 0·5	SW 2-5	1	4	10	·037	≋ 8*a*-4*p*
20	30·045	30·135	30·119	40·9	46·0	42·7	37·7	54·7	·202	·210	·213	82	72	81	WNW 1-2	WNW 3	SW 2	2	4	10	·003	
21	29·834	29·585	29·320	47·2	52·4	53·6	37·6	49·6	·284	·308	·385	89	79	94	WSW 1-3	W 2	W 3-8	10	9	10	·232	≋ 2
22	29·216	29·099	·047	45·9	41·9	37·9	45·1	56·6	·252	·240	·196	84	91	88	SW 1-3	SW 2	SW 1-3	1	6	9	·354	▲ 2
23	28·917	28·953	·035	34·9	40·7	35·9	34·1	48·6	·193	·189	·199	96	78	96	W 0·5	SW 1	SE 0·5	7	1	10	·232	
24	29·189	29·380	·583	34·7	40·0	31·0	32·3	44·4	·200	·219	·150	100	90	93	SE 0·5	NNW 1	SE 0·5	7	6	1	—	≋ 2 ⚡ 3
25	·686	29·718	29·839	31·5	43·5	29·2	29·6	44·1	·159	·236	·141	97	85	95	Calm 0	Calm 0	Calm 0	0	5	0	·017	≋ 1·3
26	29·997	30·132	30·308	26·1	38·3	30·2	**25·1**	49·4	·126	·226	·153	98	98	99	SW 0·5	E 0·5	Calm 0	0	10	10	·004	≋ 1·3
27	30·412	·507	·543	28·2	37·8	29·3	25·3	39·7	·140	·224	·145	98	99	97	SE 0·5	E 0·5	E 0·5	10	10	0	·003	≋ ^{2}8*a*-4*p*
28	·483	·324	30·234	30·9	48·6	39·9	27·8	39·3	·158	·269	·221	99	81	91	ENE 0·5	S 1	SE 0·5	5	1	0	·004	
29	30·158	30·088	29·968	44·9	49·7	47·8	30·4	51·6	·258	·277	·319	88	80	97	ESE 0·5	SW 0·5	SW 1-3	7	10	10	·062	
30	29·897	29·796	29·709	41·7	46·4	36·4	41·4	51·4	·253	·233	·207	97	77	97	Calm 0	NW 0·5	E 0·5	5	6	6	·013	≋ 3
31	29·572	29·369	28·969	43·4	49·8	45·4	33·4	47·6	·269	·294	·275	96	84	92	SW 0·5	WSW 1	SW 2-4	10	6	10	·490	
Mean	29·824	29·804	29·814	43·5	50·6	43·2	38·7	53·7	·276	·299	·272	95	82	94	0·7	1·2	1·1	6·3	6·9	6·7	3·911	

NOTES.—Min. and max. temps. read at 8 p.m. Tension of Vapour obtained from Kämtz's tables. Dorpat, 1868.

NOVEMBER.

Date.	Barometer. Reduced to 32° and Sea Level. 8 a.m.	4 p.m.	Midt.	Air Temperature. 8 a.m.	4 p.m.	Midt.	Min.	Max.	Tension of Vapour. 8 a.m.	4 p.m.	Midt.	Relative Humidity. 8 a.m.	4 p.m.	Midt.	Wind. Direction and Force. Beaufort Scale. 8 a.m.	4 p.m.	Midt.	Amount of Cloud. 0-10. 8 a.m.	4 p.m.	Midt.	Rain. Measured at 8 a.m.	Remarks.
	ins.	ins.	ins.	°	°	°	°	°	ins.	ins.	ins.	%	%	%							ins.	
1	29·079	29·014	29·047	39·2	35·1	32·1	39·1	53·4	·181	·193	·171	80	95	96	WSW 1-3	SW 0·5	E 0·5	3	8	1	·231	▲^{2}
2	·146	·179	·275	26·9	42·9	33·6	26·5	42·1	·133	·215	·179	100	81	93	ENE 0·5	SSW 0·5	E 0·5	0	2	5	·013	
3	·381	·431	·476	37·9	44·5	34·9	26·9	45·5	·223	·240	·191	98	83	95	SW 0·5	WSW 0·5	ESE 0·5	10	4	6	·020	≋ 1·3 ⩀ 3
4	·443	·389	·327	34·9	44·3	42·7	31·8	48·0	·195	·242	·252	97	85	93	E 0·5	SE 0·5	NW 1	7	4	10	·185	≋ $_2$ C$_2$
5	·340	·398	·469	43·0	45·2	41·1	34·8	48·8	·267	·281	·243	97	94	95	SW 0·5	NW 0·5	WSW 1	10	10	10	·234	≋ 8*a* midnight.
6	·499	·619	29·761	44·2	45·9	44·7	41·0	48·9	·285	·276	·244	98	91	84	WNW 1-2	NW 1-2	WNW 1-3	10	10	10	·034	
7	29·859	29·957	30·104	39·9	44·5	43·8	39·4	46·9	·212	·233	·239	88	81	85	NW 1-3	NNW 1	NW 1-2	10	9	10	—	
8	30·200	30·189	·162	38·7	42·5	31·4	38·9	46·1	·197	·181	·155	86	72	95	NNW 1	NNE 2	NE 0·5	8	8	8	—	Reading at 8 a.m. below minimum.
9	·158	·169	·152	43·9	46·5	42·3	31·3	46·4	·250	·218	·193	85	73	76	ENE 1	E 2	ENE 2-3	6	6	5	·002	≋ $^2_2$
10	·112	·118	·138	43·0	46·0	46·1	41·4	50·4	·231	·264	·286	85	87	93	NW 1-3	ENE 2	ESE 1	10	10	9	·108	≋ 8*a*-4*p*
11	·239	·242	30·237	46·2	47·9	40·1	42·9	47·6	·295	·279	·231	95	85	94	ESE 0·5	SE 0·5	NW 0·5	10	7	10	—	≋ $^2_2$
12	30·181	30·059	29·961	37·7	43·0	40.1	36·9	51·4	·207	·206	·229	93	78	94	ENE 0·5	E 0·5	SE 0·5	6	9	10	·003	≋ $^2_2$
13	29·839	29·749	29·837	38·7	43·6	45·1	37·1	44·8	·230	·261	·287	98	93	96	ESE 0·5	ESE 1-2	SE 1	10	10	10	·048	≋ $^2_1$
14	29·951	30·071	30·261	45·4	45·0	42·9	38·5	46·9	·259	·242	·219	87	83	82	ESE 1-2	E 2-3	ENE 0·5	9	10	9	—	≋ $_2$
15	30·353	·394	·473	42·0	45·1	30·9	41·3	47·9	·215	.219	·152	84	76	94	E 0·5	ENE 1	E 0·5	9	7	0	—	≋ $_2$
16	·541	·546	·567	25·4	43·6	30·7	25·3	47·4	·124	·245	·152	100	87	96	NE 0·5	ENE 0·5	Calm 0	0	9	0	·006	≋ 2·3 ⊔ ⌓
17	·524	·479	·436	33·2	41·4	39·9	25·1	45·5	·146	·205	·200	84	82	84	E 0·5	E 0·5	E 0·5	10	8	10	·002	≋ ^{2}8*a*-4*p*
18	·389	·334	·288	39·3	41·9	40·2	33·1	42·3	·210	·203	·216	90	80	89	ESE 0·5	E 0·5	E 0·5	10	10	10	—	≋ 4*p* midnight.
19	·185	·086	·076	42·7	44·7	45·0	39·1	43·5	·217	·260	·244	82	89	84	E 1	E 0·5	E 1	10	10	10	·025	
20	30·101	30·134	30·165	42·9	47·4	37·9	42·3	46·4	·263	·286	·223	96	89	98	SE 0·5	Calm 0	NNW 0·5	10	9	4	·006	≋ $^2_3$
21	29·983	29·702	29.633	42·7	49·3	52·8	36·4	50·3	·268	·346	·377	98	99	94	E 0·5	W 2-3	WNW 3-6	10	10	10	·410	≋ $^2_1$
22	·713	·803	·762	47·6	52·8	54·0	42·2	53·7	·288	·374	·382	89	95	92	W 1-2	WNW 2-4	W 4-6	2	10	10	—	≋ 8*a*-4*p*
23	·798	·892	29·886	47·6	47·8	45·1	47·3	55·4	·258	·239	·265	81	75	89	WNW 2-5	W 1	Calm 0	10	9	10	·011	
24	29·851	·960	30·073	45·7	44·8	37·5	44·7	51·0	·284	·244	·217	94	84	97	SW 0·5	WSW 0·5	SE 0·5	10	4	8	—	≋ $^2_1$
25	30·050	·882	29·736	43·4	52·3	50·4	36·9	50·6	·255	·370	·341	91	95	94	SE 0·5	SE 2	SE 2-5	10	10	10	·047	≋ $^2_2$
26	29·469	·220	·280	52·6	50·2	46·0	43·1	53·6	·368	·328	·255	94	91	85	ESE 1-3	SW 1-3	W 2-5	10	10	8	·405	
27	·487	·778	·968	42·9	47·8	42·5	42·0	55·6	·221	·373	·255	82	83	94	W 2-6	NW 2	SE 0·5	3	10	10	·005	
28	·934	·974	·939	52·5	53·2	52·4	42·1	53·6	·381	·383	·385	97	94	98	W 1-6	WSW 2-3	WSW 1	10	10	10	·083	≋ $^2_2$
29	29·611	29·585	29·800	53·0	46·1	43·9	52·2	54·9	·385	·274	·248	96	90	87	WSW 1-8	NW 4·5	WSW —	10	10	5	·156	↯ 3
30	30·146	30·310	30·355	43·9	46·5	47·0	41·8	54·5	·238	·259	·294	84	84	92	W 1-4	SW 1	SW 1	8	3	10	·003	
Mean	29·885	29·889	29·921	41·9	45·7	41·9	38·1	49·1	·243	·265	·244	91	86	91	1·4	1·3	1·2	8·0	8·2	7·9	2·037	

DECEMBER.

Date.	Barometer. 8 a.m.	4 p.m.	Midt.	Air Temperature. 8 a.m.	4 p.m.	Midt.	Min.	Max.	Tension of Vapour. 8 a.m.	4 p.m.	Midt.	Relative Humidity. 8 a.m.	4 p.m.	Midt.	Wind. 8 a.m.	4 p.m.	Midt.	Amount of Cloud. 8 a.m.	4 p.m.	Midt.	Rain. Measured at 8 a.m.	Remarks.
1	30·338	30·356	30·410	49·0	51·9	51·1	42·8	50·6	·324	·348	·370	94	90	99	SW 1-4	WSW 1	S 0·5	10	10	10	·014	
2	·461	·455	·473	50·6	51·8	45·5	48·4	53·2	·361	·338	·274	98	88	91	W 0·5	SW 1	SW 0·5	10	10	9	·002	
3	·488	·523	·534	41·7	48·8	46·5	40·9	54·6	·249	·289	·280	95	85	90	SW 0·5	WSW 0·5	SE 0·5	8	9	10	—	
4	·494	·444	·387	46·8	48·1	47·8	41·2	51·5	·271	·282	·281	87	85	86	SE 0·5	SW 0·5	SSW 0·5	10	10	10	—	
5	·372	·337	·378	48·6	48·6	49·1	46·5	49·9	·287	·315	·319	85	93	92	W 0·5	SW 1	SSW 0·5	10	10	10	·043	
6	·494	·480	·462	35·8	42·6	45·2	35·6	51·4	·208	·253	·291	100	94	97	SE 0·5	SE 0·5	SE 0·5	0	9	10	·005	≋ $_2$
7	·408	·397	·416	46·2	48·3	45·6	33·2	46·8	·260	·286	·270	85	86	90	E 1	E 0·5	E 0·5	10	10	9	—	≋ $_2$
8	·436	·446	·476	46·5	47·6	47·0	43·7	50·4	·273	·291	·269	88	90	85	SE 0·5	WSW 0·5	Calm 0	9	10	10	—	4 p.m. readings taken 45 minutes late.
9	·472	·481	·523	46·4	46·7	39·9	42·5	49·1	·279	·261	·219	90	84	90	SE 0·5	SW 0·5	SE 0·5	10	9	5	—	
10	·533	·522	·562	30·0	40·5	35·5	29·9	47·8	·152	·224	·206	98	90	100	ESE 0·5	SE 0·5	SSE 0·5	0	1	8	·005	⊔ ⌓
11	·564	·561	·568	32·0	41·5	40·4	29·2	43·5	·180	·228	·241	100	89	97	SE 0·5	E 0·5	SE 0·5	0	1	10	·011	⊔ ⌓
12	·577	·577	·604	41·9	44·6	43·0	31·5	44·4	·240	·255	·248	91	88	90	S 1	SW 0·5	SE 0·5	10	10	10	—	≋ $_2$
13	·600	·573	·527	41·1	42·1	39·9	40·9	45·9	·238	·220	·210	94	85	87	E 0·5	SW 0·5	W 0·5	10	10	10	—	
14	30·372	30·220	30·030	42·1	44·7	45·9	39·8	44·8	·230	·244	·254	88	84	85	WSW 0·5	SE 0·5	SE 2-3	10	10	8	·011	
15	29·991	29·907	29·795	45·2	49·9	53·4	41·9	49·4	·273	·301	·390	92	82	96.	SSW 1-2	SW 2	SW 2-4	9	10	10	·051	≋ $_2$
16	29·896	30·057	30·117	50·4	48·7	51·5	44·5	55·7	·289	·296	·373	81	87	97	W 2-3	WSW 0·5	WSW 1	2	1	10	·039	≋ $_3$
17	30·164	·153	·122	49·8	51·8	52·3	47·2	54·6	·347	·341	·361	97	89	93	SW 0·5	W 1-2	WSW 0·5	10	9	10	·024	
18	30·204	30·176	30·047	45·2	43·1	44·9	45·1	54·5	·286	·259	·292	96	94	98	SW 0·5	SW 0·5	Calm 0	7	4	10	·251	≋ $_1$ ⌓$_2$
19	29·948	29·888	29·895	44·0	45·5	39·4	38·5	48·0	·282	·274	·233	98	91	98	SW 0·5	SW 0·5	SE 0·5	10	4	1	·021	≋ $_1$
20	29·918	29·908	30·024	39·9	46·9	47·8	37·5	46·1	·225	·270	·306	93	86	93	SE 0·5	WSW 2	SW 1-3	2	7	8	·048	8 a.m. readings taken 40 minutes late.
21	30·016	29·894	29·889	48·2	50·7	42·9	39·3	50·3	·288	·275	·254	87	76	93	SW 2-3	WSW 4-5	WSW 2	9	8	10	·208	
22	29·990	30·088	30·144	41·0	42·4	38·3	39·3	51·9	·201	·212	·217	81	82	95	WSW 2-3	SW 1	SSW 0·5	4	6	4	·015	≋ 3
23	30·062	29·973	·075	44·5	50·3	47·0	37·7	45·5	·254	·354	·284	88	97	90	SSW 1	WSW 3	SW 2	10	10	0	·019	
24	·244	30·251	·236	44·0	47·4	49·3	43·9	53·0	·256	·298	·319	90	92	92	Calm 0	S 0·5	S 0·5	10	10	10	—	
25	30·189	30·130	30·077	48·8	49·1	46·5	43·4	50·3	·321	·309	·283	94	90	91	S 1	S 1	SE 0·5	10	9	10	—	
26	29·968	29·875	29·965	46·0	46·3	33·8	44·9	52·4	·285	·276	·191	93	90	99	SE 0·5	SW 0·5	Calm 0	10	5	0	·064	≋ $_2$
27	29·982	30·022	30·153	29·7	38·9	27·6	29·7	49·8	·150	·203	·119	98	88	82	SE 0·5	Calm 0	NE 0·5	0	1	3	·009	≋ $_3$ ⊔ ⌓
28	30·168	30·051	29·871	25·2	34·2	36·7	25·0	41·5	·135	·177	·180	100	90	85	N 0·5	SSE 1	S 1-2	8	6	5	·008	≋ $^2_1$ ⊔ ⌓
29	29·648	29·494	·433	43·7	46·6	48·8	24·8	44·7	·232	·229	·279	83	75	83	SW 2-4	S 3-5	S 4-5	6	8	7	·010	≋ $_2$
30	·465	·235	·219	44·4	44·1	43·9	43·1	49·8	·255	·254	·243	88	89	86	SE 1-2	S 3-4	SSW 2-4	9	10	7	·220	
31	29·371	29·616	29·966	38·6	41·9	41·8	38·2	47·8	·220	·212	·225	95	83	87	SW 1-2	NNW 1-2	SW 0·5	3	6	3	·084	
Mean	30·188	30·164	30·173	42·8	46·0	44·1	39·0	49·3	·253	·270	·267	92	87	92	1·0	1·2	1·0	7·3	7·5	7·6	1·162	

NOTES.—Min. and max. temps. read at 8 a.m. Tension of Vapour obtained from Kämtz's tables. Dorpat, 1868.

SANDWICK - -

Long. 3° 18′ W. Lat. 59° 2′ N. Height above M. S. L. 94 ft.

1873.	Mean Pressure.	Air Temperature.									Tension of Vapour.			Relative Humidity.		
		9 a.m.	9 p.m.	Mean.	Means of		Abs. Min.		Abs. Max.		9 a.m.	9 p.m.	Mean.	9 a.m.	9 p.m.	Mean.
					Min.	Max.	Temp.	Day.	Temp.	Day.						
	ins.	°	°	°	°	°	°		°		ins.	ins.	ins.			
January - -	29·348	39·1	39·1	39·1	36·9	43·2	29·3	20th	51·1	14th	·216	·216	·216	91	90	91
February - -	30·044	37·2	35·9	36·6	33·5	40·9	**17·3**	**25th**	48·1	19th	·206	·192	·199	93	91	92
March - -	29·806	39·6	38·2	38·9	35·7	43·5	29·9	1st	48·1	27th	·223	·216	·220	92	94	93
April - -	30·024	43·4	42·2	42·8	39·2	47·5	31·6	25th	53·4	20th	·251	·252	·251	89	94	91
May - - -	29·921	45·4	42·4	43·9	39·4	50·9	32·8	5th and 19th	59·3	31st	·243	·237	·240	81	87	84
June - -	·852	54·7	51·7	53·2	48·8	60·1	36·9	1st	68·1	2nd	·363	·332	·348	85	86	86
July - -	·741	58·1	55·4	56·7	51·6	63·0	44·9	13th	**75·3**	**22nd**	·400	·385	·392	82	88	85
August - -	·705	55·4	53·4	54·4	50·4	59·6	38·8	11th	64·0	27th	·366	·355	·361	84	87	85
September - -	·776	50·9	48·5	49·7	46·0	55·2	38·8	9th	69·0	27th	·312	·297	·304	84	87	86
October - -	·566	45·1	44·2	44·6	41·6	48·6	35·7	21st	53·6	18th	·244	·248	·246	82	85	84
November - -	·772	41·9	41·9	41·9	39·6	45·8	31·3	5th	50·8	28th	·238	·232	·235	90	88	89
December - -	·789	43·6	43·5	43·6	38·4	47·6	31·6	28th	53·0	16th	·242	·237	·240	85	84	84
Year -	29·779	46·2	44·7	45·5	—	—	—	—	—	—	·275	·267	·271	87	88	88

SEAHAM - -

Long. 1° 19′ W. Lat. 54° 50′ N. Height above M. S. L. 100 feet.

1873.	Mean Pressure.	Air Temperature.									Tension of Vapour.			Relative Humidity.		
		8 a.m.	8 p.m.	Mean.	Means of		Abs. Min.		Abs. Max.		8 a.m.	8 p.m.	Mean.	8 a.m.	8 p.m.	Mean
					Min.	Max.	Temp.	Day.	Temp.	Day.						
	ins.	°	°	°	°	°	°		°		ins.					
January - -	29·569	39·9	—	—	37·4	44·4	26·0	21st	57·0	15th	·218	—	—	86	—	—
February - -	30·125	35·9	—	—	32·4	41·9	**21·0**	**24th**	52·0	16th	·181	—	—	84	—	—
March - -	29·830	39·0	—	—	35·6	43·6	28·0	13th	52·0	5th	·216	—	—	90	—	—
April - -	30·048	44·5	—	—	38·4	50·2	29·0	25th	60·0	3rd and 6th	·256	—	—	87	—	—
May - - -	29·920	48·0	—	—	41·4	54·3	30·0	20th	64·0	2nd and 22nd	·288	—	—	86	—	—
June - -	·963	*56·7	—	—	50·6	63·1	45·0	8th	74·0	22nd and 23rd	·383	—	—	84	—	—
July - -	·846	62·5	—	—	53·5	68·7	45·0	5th	**81·0**	**22nd**	·459	—	—	81	—	—
August - -	·823	59·2	—	—	52·7	67·1	44·0	11th	74·0	2nd and 8th	·397	—	—	79	—	—
September - -	·874	53·1	—	—	46·8	61·2	38·0	7th and 22nd	72·0	28th	·329	—	—	81	—	—
October - -	·747	45·7	—	—	39·9	54·4	32·0	24th and 25th	64·0	11th	·278	—	—	89	—	—
November - -	29·853	43·2	—	—	39·3	48·4	34·0	5th and 17th	56·0	30th	·243	—	—	87	—	—
December - -	30·105	42·2	—	—	38·5	47·7	27·0	29th	56·0	16th	·241	—	—	88	—	—
Year -	29·892	47·5	—	—	—	—	—	—	—	—	·291	—	—	85	—	—

* Mean of 29 days only. The 8 p.m. thermometer readings were so frequently omitted that it has been considered advisable to reject the remainder throughout the year 1873.

DURHAM - -

Long. 1° 35′ W. Lat. 54° 47′ N. Height above M. S. L. 345 ft.

1873.	Mean Pressure.	Air Temperature.									Tension of Vapour.			Relative Humidity.		
		10 a.m.	10 p.m.	Mean.	Means of		Abs. Min.		Abs. Max.		10 a.m.	10 p.m.	Mean.	10 a.m.	10 p.m.	Mean.
					Min.	Max.	Temp.	Day.	Temp.	Day.						
	ins.	°	°	°	°	°	°		°		ins.	ins.	ins.			
January - -	29·573	39·5	39·3	39·4	35·6	43·2	22·2	21st	53·6	13th	·209	·211	·210	86	88	87
February - -	30·109	35·8	33·6	34·7	30·2	39·7	**17·0**	**24th**	48·0	20th	·175	·168	·172	83	87	85
March - -	29·823	39·8	37·1	38·5	33·5	44·8	25·1	13th	59·5	30th	·213	·207	·210	87	94	91
April - -	30·041	46·4	40·3	43·4	36·5	50·9	27·4	20th	59·1	30th	·238	·229	·234	76	92	84
May - - -	29·929	50·5	43·0	46·7	39·8	55·2	30·4	20th	65·0	25th	·286	·253	·270	78	91	85
June - -	·917	58·9	51·8	55·3	48·7	67·0	42·2	7th and 16th	75·4	21st	·374	·351	·363	75	91	83
July - -	·842	64·3	56·4	60·4	51·8	71·2	44·6	5th	**89·3**	**22nd**	·422	·402	·412	70	88	79
August - -	·810	61·0	54·5	57·7	50·6	67·3	41·2	11th	76·4	7th	·391	·389	·390	74	91	83
September - -	·864	54·8	48·0	51·4	44·5	60·8	32·8	30th	70·0	27th	·346	·309	·328	80	93	87
October - -	·745	47·3	42·2	44·7	38·1	53·0	25·1	25th	64·2	3rd	·276	·247	·262	86	92	89
November - -	29·856	43·5	41·4	42·5	37·3	47·1	28·1	4th	55·6	23rd	·242	·231	·237	85	89	87
December - -	30·099	41·5	41·5	41·5	35·7	46·8	25·4	29th	54·9	16th	·230	·234	·232	89	90	90
Year -	29·884	48·6	44·1	46·4	—	—	—	—	—	—	·284	·269	·277	81	91	86

- - SANDWICK.

Therms. 4 ft. above ground. Rain gauge 2 ft. above ground.

1873.	Amount of Cloud.			Rainfall.			Weather.							Wind.								
							No. of Days of							No. of Obs. under each point.								
	9 a.m.	9 p.m.	Mean.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
				ins.	ins.																	
January - -	5·0	5·8	5·4	3·520	·450	4th	25	2	0	0	10	17	7	2	1	0	10	20	12	12	5	0
February - -	6·4	6·9	6·6	1·540	·340	23rd	17	7	0	0	6	19	7	9	5	3	5	3	7	11	10	3
March - -	6·7	6·5	6·6	2·200	·400	8th	12	4	1	0	7	17	2	5	3	3	19	17	2	3	7	3
April - -	7·0	6·8	6·9	1·440	·180	4th	17	2	2	0	5	18	2	13	4	1	11	4	2	11	14	0
May - - -	6·4	5·3	5·8	1·710	·380	1st	14	3	1	0	7	15	1	12	2	12	8	3	3	7	15	0
June - -	7·4	5·7	6·6	1·820	·280	27th	13	0	0	2	9	21	1	2	5	5	10	14	8	8	8	0
July - -	6·4	6·8	6·6	2·390	·480	22nd	18	0	0	4	6	20	0	3	1	3	16	14	5	11	7	2
August - -	6·3	6·1	6·2	4·060	·900	12th	22	0	0	0	8	15	0	0	2	7	8	8	7	19	9	2
September - -	6·4	6·3	6·4	3·510	·480	17th	19	0	0	1	6	20	1	17	7	4	2	5	1	11	10	3
October - -	5·7	7·5	6·6	6·560	·820	10th	28	2	2	0	7	19	4	4	3	4	3	9	8	16	14	1
November - -	7·2	7·5	7·3	4·690	1·160	21st	18	1	1	0	5	17	7	3	7	3	4	6	6	13	10	8
December - -	6·8	7·3	7·1	4·290	·960	12th	22	4	1	0	5	20	10	1	2	0	0	12	15	21	10	1
Year -	6·5	6·5	6·5	37·730	—	—	225	25	8	7	81	218	42	71	42	45	96	115	76	143	119	23

- - SEAHAM.

Therms. 4 ft. above ground. Rain gauge 6 in. above ground.

1873.	Amount of Cloud.			Rainfall.			Weather.							Wind.								
							No. of Days of							No. of Obs. under each point.								
	8 a.m.	8 p.m.	Mean.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
				ins.	ins.																	
January - -	4·4	5·3	4·9	1·200	·250	15th	18	2	1	0	13	15	3	1	0	3	4	24	21	6	1	2
February - -	5·8	4·8	5·3	1·820	·480	3rd	14	9	3	0	14	14	4	14	7	1	5	1	8	13	7	0
March - -	5·0	4·7	4·9	1·790	·270	7th	15	2	1	0	18	15	0	6	8	10	11	6	8	4	0	9
April - -	5·2	4·8	5·0	1·580	·280	24th	15	4	5	1	11	14	5	27	9	3	3	4	4	7	3	0
May - - -	5·6	5·2	5·4	2·530	·570	5th	16	0	1	0	12	16	2	15	6	10	5	8	3	9	6	0
June - -	6·0	5·2	5·6	1·070	·410	3rd	8	0	0	1	4	13	0	13	6	5	2	9	11	7	7	0
July - -	4·6	4·3	4·5	2·360	·610	23rd	13	0	1	4	11	12	0	2	0	0	0	17	17	10	2	14
August - -	5·7	5·2	5·5	2·070	·360	31st	17	0	0	1	4	12	2	5	1	0	4	10	17	18	1	6
September - -	4·2	3·9	4·0	1·460	·310	30th	12	0	1	0	16	11	5	6	2	4	1	11	14	14	7	1
October - -	5·4	3·5	4·5	2·450	1·200	2nd	13	0	1	2	13	15	2	2	1	2	0	11	22	17	7	0
November - -	6·0	3·7	4·9	1·340	·370	6th	11	0	0	1	7	11	4	0	10	7	3	9	8	16	7	0
December - -	3·3	3·8	3·5	0·340	·110	26th	5	0	0	0	15	11	2	0	0	0	0	15	28	16	3	0
Year -	5·1	4·5	4·8	20·010	—	—	157	17	14	10	138	159	29	91	50	45	38	125	161	137	51	32

- - DURHAM.

Therms. 5 ft. above ground. Rain gauge 4 ft. 6 in. above ground.

1873.	Amount of Cloud.			Rainfall.			Weather.							Wind.								
							No. of Days of							No. of Obs. under each point.								
	10 a.m.	10 p.m.	Mean.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
				ins.	ins.																	
January - -	6·6	7·0	6·8	2·008	·349	18th	14	3	0	0	11	24	0	2	1	6	3	25	17	7	1	0
February - -	7·5	6·4	6·9	1·658	·636	3rd	14	7	1	0	12	23	0	15	2	4	2	7	7	9	9	1
March - -	6·8	7·6	7·2	2·245	·512	6th	18	5	1	0	8	23	0	7	7	14	6	15	3	7	3	0
April - -	6·7	6·2	6·4	1·207	·314	24th	16	4	3	1	9	19	1	14	17	4	2	3	1	10	9	0
May - - -	7·2	6·2	6·7	2·525	·879	5th	17	0	0	0	14	25	1	13	7	8	2	8	5	12	7	0
June - -	8·0	7·3	7·6	1·631	·583	15th	13	0	0	2	7	24	0	7	12	3	1	11	11	11	4	0
July - -	6·9	6·4	6·6	2·727	·830	3rd	13	0	0	3	11	21	1	0	1	0	5	24	19	10	3	0
August - -	7·3	5·8	6·5	2·747	·584	31st	16	0	0	1	11	21	0	2	3	4	3	16	12	18	4	0
September - -	5·8	4·8	5·3	1·813	·321	30th	12	0	0	0	14	19	0	7	0	2	2	13	8	20	8	0
October - -	5·7	4·4	5·1	1·999	·743	2nd	15	0	0	2	17	16	1	4	2	1	1	17	12	21	4	0
November - -	7·3	8·1	7·7	2·045	·538	7th	15	0	0	0	7	25	4	4	7	12	1	8	10	11	6	1
December - -	6·1	5·9	6·0	0·428	·151	21st	7	0	0	0	13	23	6	1	0	0	1	20	20	15	4	1
Year -	6·8	6·3	6·6	23·033	—	—	170	19	5	9	134	263	14	76	59	58	29	167	125	151	62	3

HULL

Long. 0° 20′ W. Lat. 53° 45′ N. Height above M. S. L., 29 feet.

1873.	Mean Pressure.	Air Temperature.									Tension of Vapour.			Relative Humidity.		
		9 a.m.	9 p.m.	Mean.	Means of		Abs. Min.		Abs. Max.		9 a.m.	9 p.m.	Mean.	9 a.m.	9 p.m.	Mean.
					Min.	Max.	Temp.	Day.	Temp.	Day.						
	ins.	°	°	°	°	°	°		°		ins.	ins.	ins.			
January	29·653	40·8	41·3	41·1	37·1	45·6	25·5	21st	53·5	14th and 15th	·230	·234	·232	88	88	88
February	30·104	36·4	35·4	35·9	31·8	41·9	**18·5**	**25th**	50·0	21st	·191	·186	·189	89	90	90
March	29·832	40·5	39·4	40·0	34·9	47·6	27·0	14th	56·0	28th and 29th	·221	·224	·223	88	93	91
April	30·033	48·2	42·1	45·2	38·5	53·8	31·5	26th and 27th	62·5	16th	·247	·236	·241	74	88	81
May	29·952	52·7	46·0	49·4	41·7	58·6	31·5	20th	66·1	23rd	·293	·278	·286	74	90	82
June	·950	59·4	54·7	57·1	50·2	67·8	42·5	2nd	77·0	23rd	·417	·391	·404	83	91	87
July	·905	66·9	59·5	63·2	53·7	73·6	45·0	1st	**86·0**	**22nd**	·453	·442	·448	69	87	78
August	·868	62·3	58·2	60·3	53·3	70·6	45·0	11th	77·5	8th	·438	·430	·434	78	88	83
September	·909	55·7	50·2	53·0	45·5	63·5	33·0	30th	73·0	2nd	·339	·315	·327	76	87	82
October	·801	48·6	45·2	46·9	40·2	55·8	25·0	29th	67·5	4th	·282	·280	·281	83	93	88
November	29·878	44·8	43·6	44·2	39·6	49·6	31·5	13th	56·0	23rd	·251	·252	·252	85	89	87
December	30·185	41·3	41·4	41·4	36·0	45·6	25·0	13th	54·5	17th	·230	·238	·234	89	92	90
Year	29·923	49·8	46·4	48·1	—	—	—	—	—	—	·299	·292	·296	81	90	86

DUBLIN - - -

Long. 6° 16′ W. Lat. 53° 21′ N. Height above M. S. L., 57 feet.

1873.	Mean Pressure.	Air Temperature.									Tension of Vapour.			Relative Humidity.		
		9 a.m.	9 p.m.	Mean.	Means of		Abs. Min.		Abs. Max.		9 a.m.	9 p.m.	Mean.	9 a.m.	9 p.m.	Mean.
					Min.	Max.	Temp.	Day.	Temp.	Day.						
	ins.	°	°	°	°	°	°		°		ins.	ins.	ins.			
January	29·554	42·4	42·4	42·4	38·7	47·3	27·4	21st	57·1	13th	·230	·232	·231	84	85	84
February	30·165	36·7	37·7	37·2	33·5	42·2	**24·0**	**3rd and 4th**	47·4	20th	·185	·187	·186	84	82	83
March	29·801	42·3	42·0	42·2	38·3	47·3	31·9	13th	57·4	27th	·229	·228	·228	84	84	84
April	30·105	47·5	46·7	47·1	41·5	53·1	34·4	26th	61·0	30th	·249	·254	·251	75	79	77
May	29·978	53·2	50·3	51·8	45·7	58·1	35·1	19th	65·2	26th	·286	·286	·286	71	78	74
June	·978	59·9	57·3	58·6	52·5	65·7	45·6	16th	77·0	21st	·370	·365	·367	72	77	75
July	·865	61·2	59·2	60·2	54·8	68·0	48·0	14th	**79·3**	**20th**	·405	·400	·403	75	79	77
August	·863	59·6	58·2	58·9	54·4	66·0	47·4	29th	76·6	7th	·411	·402	·406	81	82	82
September	·951	54·1	52·2	53·2	48·1	60·1	35·9	29th	69·2	27th	·341	·332	·337	80	84	82
October	·820	47·1	46·5	46·8	42·5	53·8	30·6	28th	68·1	1st	·288	·283	·286	86	87	87
November	29·897	44·7	45·1	44·9	42·0	49·5	29·1	3rd	56·8	26th	·250	·256	·253	83	84	84
December	30·187	44·5	45·7	45·1	41·3	49·6	29·1	28th	55·7	16th and 17th	·250	·259	·254	83	84	84
Year	29·930	49·4	48·6	49·0	—	—	—	—	—	—	·291	·290	·291	80	82	81

PARSONSTOWN - - -

Long. 7° 55′ W. Lat. 53° 6′ N. Height above M. S. L. 182 ft.

1873.	Mean Pressure.	Air Temperature.										Tension of Vapour.				Relative Humidity.			
		8 a.m.	4 p.m.	Midt.	Mean.	Means of		Abs. Min.		Abs. Max.		8 a.m.	4 p.m.	Midt.	Mean.	8 a.m.	4 p.m.	Midt.	Mean.
						Min.	Max.	Temp.	Day.	Temp.	Day.								
	ins.	°	°	°	°	°	°	°		°		ins.	ins.	ins.	ins.				
January	29·524	39·6	41·9	39·7	40·4	34·8	45·9	18·9	21st	53·1	14th	·223	·237	·225	·228	92	89	91	91
February	30·171	33·7	40·3	34·0	36·0	30·3	42·8	**18·8**	**4th**	52·4	21st	·177	·194	·174	·182	93	80	90	88
March	29·800	39·6	45·6	38·7	41·3	33·6	48·5	24·4	1st	61·3	27th	·227	·236	·218	·227	93	79	92	88
April	30·115	44·8	52·6	43·1	46·8	38·5	54·6	27·5	26th	65·8	20th	·263	*·266	·260	*·263	89	*71	92	*84
May	†29·978	50·9	†56·6	46·2	†51·2	42·5	59·6	30·6	19th	71·4	31st	·290	†·288	·284	†·287	79	†66	91	†79
June	‡·971	55·8	62·6	‡52·8	‡57·1	48·7	64·9	40·8	16th	74·6	22nd	·379	·366	‡·370	‡·372	85	66	‡92	‡81
July	·847	57·6	63·3	54·8	58·6	52·1	66·8	43·3	14th	**78·4**	**22nd**	·409	·401	·395	·402	86	70	92	83
August	·863	56·0	62·0	55·0	57·7	51·7	64·8	45·4	30th	72·5	8th	·409	·408	·399	·405	91	74	92	86
September	·955	49·7	57·6	49·5	52·3	44·7	60·5	31·7	29th	68·5	28th	·339	·343	·326	·336	93	74	91	86
October	·814	43·5	50·6	43·2	45·8	38·7	53·7	25·1	26th	67·8	2nd	·276	·299	·272	·282	95	82	94	90
November	29·898	41·9	45·7	41·9	43·2	38·1	49·1	25·1	17th	55·6	27th	·243	·265	·244	·251	91	86	91	89
December	30·175	42·8	46·0	44·1	44·3	39·0	49·3	24·8	29th	55·7	16th	·253	·270	·267	·263	92	87	92	90
Year	29·926	46·3	52·1	45·3	47·9	—	—	—	—	—	—	·291	·298	·286	·292	90	77	92	86

* 20th day, 4 p.m., observation lost. † 1st day, 4 p.m., observation lost.

HULL.

Therms. 4 ft. above ground. Rain gauge 8 in. above ground.

1873.	Amount of Cloud.			Rainfall.			Weather. No. of Days of							Wind. No. of Obs. under each point.								
	9 a.m.	9 p.m.	Mean.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
				ins.	ins.																	
January - -	5·9	6·2	6·1	1·800	·390	22nd	13	2	0	1	12	18	1	0	1	5	9	15	22	6	4	0
February - -	7·9	7·9	7·9	1·820	·520	3rd	15	6	1	0	6	25	0	10	4	3	3	2	6	10	10	8
March - -	7·5	6·3	6·9	2·350	·940	11th	15	3	0	0	10	21	0	7	10	9	8	6	4	3	4	8
April - -	6·7	6·4	6·6	0·750	·170	6th	16	0	1	1	8	18	0	15	7	3	2	2	7	9	13	2
May - - -	7·2	6·5	6·9	1·840	·270	5th	13	0	0	0	10	22	0	5	4	3	5	5	11	13	13	3
June - -	8·9	6·7	7·8	1·340	·230	3rd	12	0	1	1	9	25	0	9	9	6	7	10	9	7	3	0
July - -	5·6	5·9	5·8	3·190	1·120	3rd	17	0	0	5	13	19	0	0	1	3	11	14	15	9	2	6
August - -	7·1	5·1	6·1	2·610	·650	18th	17	0	0	1	15	23	0	2	3	3	5	14	19	10	2	4
September - -	5·9	3·6	4·8	2·000	·610	15th	13	0	0	0	20	16	3	3	3	3	6	11	12	11	11	0
October - -	5·6	4·2	4·9	1·990	·310	21st	16	0	0	0	20	19	1	1	0	1	4	16	20	10	5	5
November - -	7·1	6·8	7·0	1·270	·230	7th	12	0	0	1	10	21	0	6	6	5	6	7	8	11	8	3
December - -	6·0	6·4	6·2	0·330	·100	26th	8	0	0	0	16	24	0	0	0	2	7	20	19	7	3	4
Year -	6·8	6·0	6·4	21·290	—	—	167	11	3	10	149	251	5	58	48	46	73	122	152	106	78	43

March wind:—3 obs. lost.

July wind:—1 obs. lost.

DUBLIN.

Therms. 4 ft. above ground. Rain gauge 3 ft. 4 ins. above ground.

1873.	Amount of Cloud.			Rainfall.			Weather. No. of Days of							Wind. No. of Obs. under each Point.								
	9 a.m.	9 p.m.	Mean.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
				ins.	ins.																	
January - -	6·4	5·5	6·0	2·650	1·039	15th	21	4	3	5	8	22	4	1	2	3	7	12	18	15	2	2
February - -	6·4	6·5	6·4	0·925	·429	24th	8	6	3	0	9	20	2	7	4	2	4	4	5	11	13	6
March - -	6·8	5·5	6·2	2·391	·542	6th	22	6	6	0	10	19	1	9	8	13	6	4	3	9	6	4
April - -	6·2	4·8	5·5	0·498	·235	17th	8	1	3	0	11	14	0	10	12	6	3	1	0	11	10	
May - -	5·4	4·8	5·1	0·907	·115	10th	17	0	2	1	11	13	0	4	8	8	3	2	4	18	11	4
June - -	6·4	4·8	5·6	0·939	·230	15th	13	0	0	0	9	18	0	3	8	4	3	4	5	20	8	5
July - -	6·3	4·9	5·6	3·408	·740	22nd	25	0	4	5	4	13	0	0	0	1	3	12	17	24	3	12
August - -	6·5	5·3	5·9	3·944	·928	24th	23	0	0	1	5	16	0	1	2	4	5	5	12	23	8	2
September - -	5·0	4·4	4·7	2·368	1·181	13th	13	0	0	0	11	10	1	5	1	3	5	4	5	16	13	8
October - -	5·5	4·4	5·0	3·089	1·171	24th	18	0	4	3	15	16	1	3	0	0	0	3	9	30	10	7
November - -	6·9	7·2	7·1	2·009	·506	13th	14	0	2	1	7	21	3	4	4	18	3	2	3	15	4	7
December - -	5·9	6·6	6·3	0·692	·295	18th	7	0	0	0	4	18	0	0	0	0	1	5	17	32	4	3
Year -	6·1	5·4	5·8	23·820	—	—	189	17	27	16	104	200	12	47	49	62	43	58	98	224	92	57

PARSONSTOWN.

Therms. 3 ft. 6 ins. above ground. Rain gauge 8 ins. above ground.

1873.	Amount of Cloud.				Rainfall.			Weather. No. of Days of							Wind. No. of Obs. under each Point.								
	8 a.m.	4 p.m	Midt.	Mean.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
					ins.	ins.																	
January -	7·4	7·7	6·6	7·2	5·359	1·114	15th	26	4	0	0	8	25	0	2	6	9	20	13	30	5	3	5
February -	7·3	7·3	6·2	6·9	0·909	0·240	1st	15	3	0	0	11	21	0	9	10	7	15	3	5	8	15	12
March -	7·2	8·1	6·9	7·4	4·208	1·035	31st	21	1	0	0	10	25	0	8	16	9	20	2	16	5	9	8
April -	6·8	7·2	5·9	6·6	1·793	0·561	19th	12	0	0	2	14	22	0	7	13	12	14	2	9	10	20	3
May - -	7·5	7·1	6·6	7·1	2·098	0·442	6th	16	0	0	0	9	24	0	2	4	10	16	5	11	21	18	6
June - -	7·6	7·4	‡6·5	‡7·2	1·428	0·270	11th	17	0	0	2	8	25	0	2	7	5	12	1	26	23	7	6
July - -	7·7	7·4	7·2	7·4	4·187	0·882	17th	26	0	0	0	3	24	0	0	0	9	16	4	29	26	6	3
August -	7·5	8·1	8·5	8·0	4·933	1·520	23rd	29	0	1	0	3	29	0	0	0	4	16	2	29	31	6	5
September -	6·8	7·3	7·0	7·0	4·061	1·677	30th	21	0	0	0	9	22	0	§3	4	5	16	1	18	15	12	11
October -	6·3	6·9	6·7	6·6	3·911	0·873	2nd	29	0	1	2	14	24	1	2	1	9	18	6	27	13	9	8
November -	8·0	8·2	7·9	8·0	2·037	0·410	21st	22	0	1	0	4	26	1	2	7	25	14	0	12	14	13	3
December -	7·3	7·5	7·6	7·5	1·162	0·251	18th	22	0	0	0	8	24	0	2	1	5	22	14	33	11	—	5
Year -	7·3	7·5	7·0	7·2	36·086	—	—	256	8	3	6	101	291	2	39	69	109	199	53	245	182	118	74

‡ 5th day, midnight, observations lost.

§ Wind:—Five observations lost.

LONDON:
Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.

For Her Majesty's Stationery Office.

[4301.—500.
[4334.—125. } 7/75.]

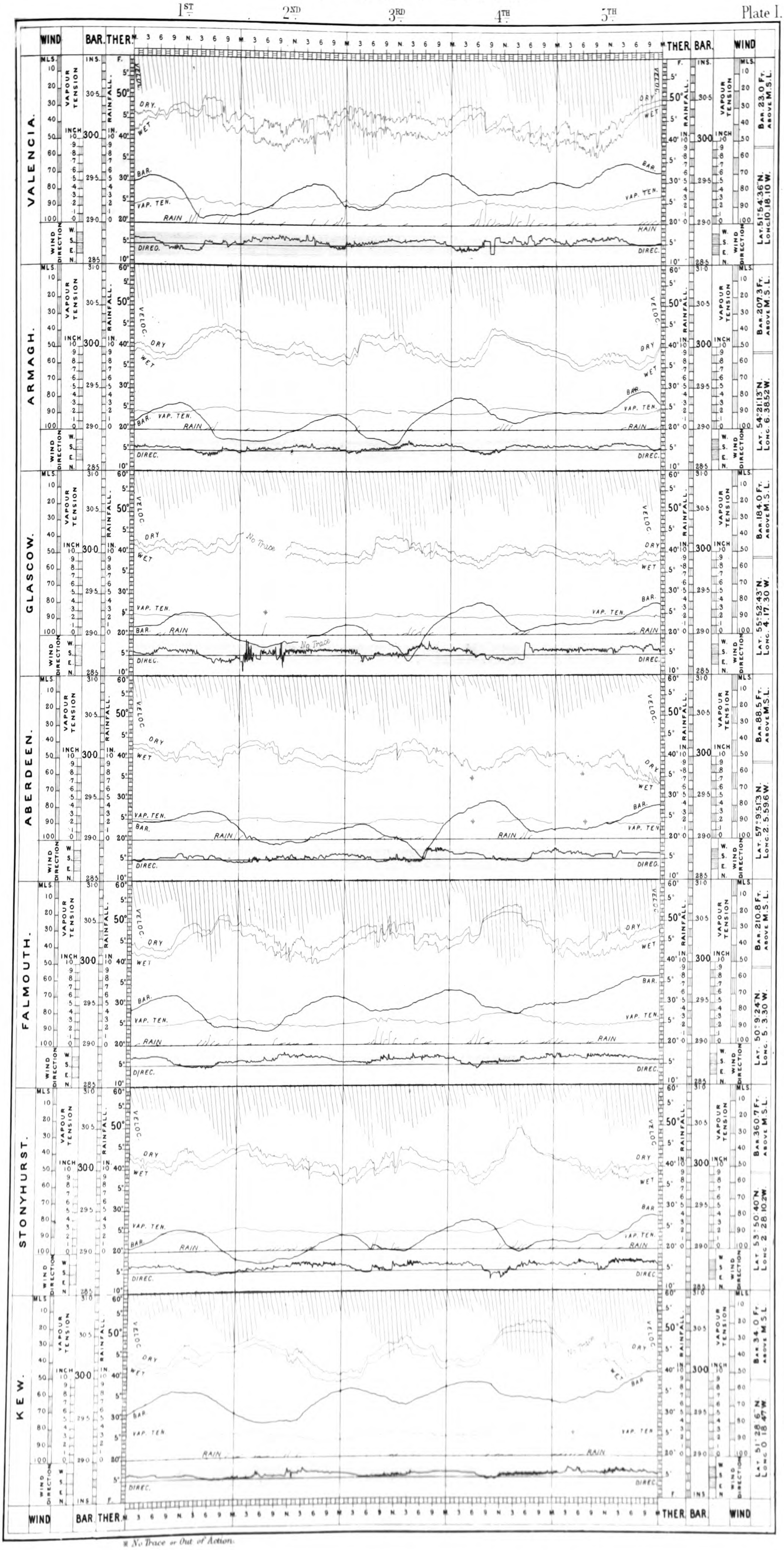
RAINFALL OF THE LONDON DISTRICT.

DAILY AVERAGES. (47 YEARS 1826 - 1872.)

Malby & Sons, Lith.

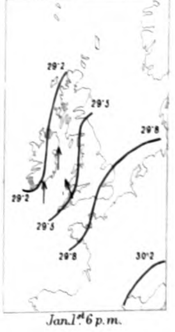
JANUARY. — 1873.

Plate I.



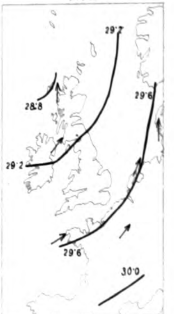
* No Trace or Out of Action.

FIG. 1


29.2
29.3
29.8
29.2
29.3
29.8
30.2

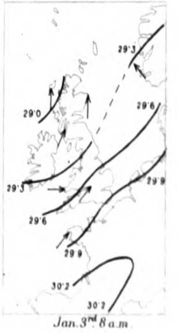
Jan. 1st 6 p.m.

FIG. 2


29.7
28.8
29.6
29.2
29.6
30.0

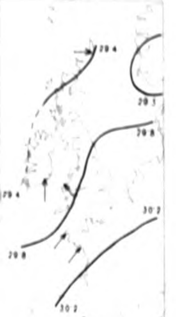
Jan. 2nd 8 a.m.

FIG. 3


29.3
29.0
29.6
29.3
29.9
29.6
29.9
30.2
30.2

Jan. 3rd 8 a.m.

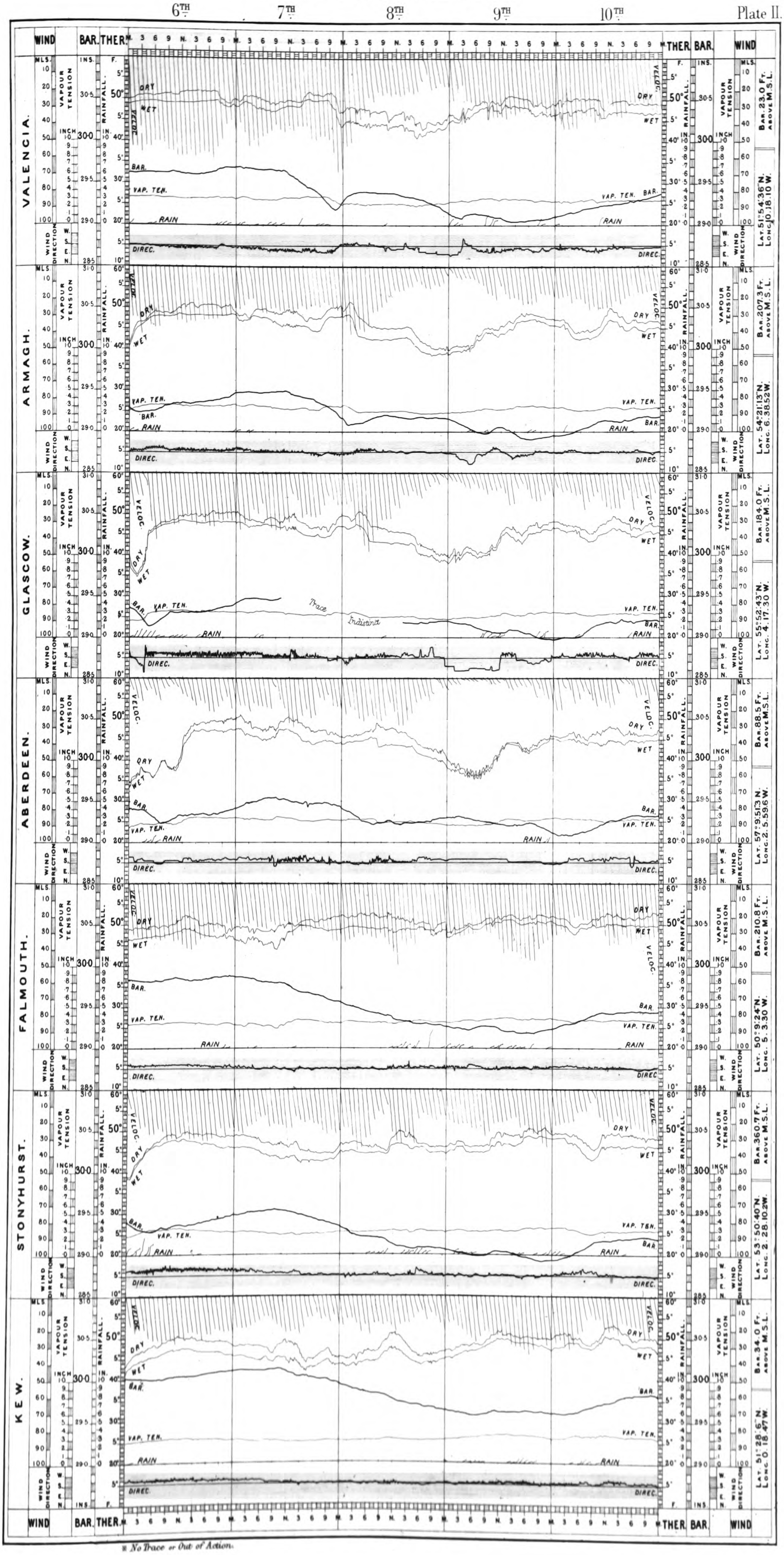
FIG. 4


29.4
29.3
29.8
29.4
30.2
29.8
30.2

Jan. 4th 8 a.m.

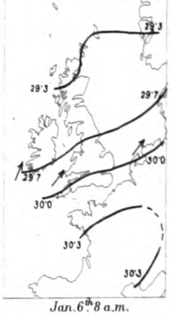
JANUARY, — 1873.

Plate II.



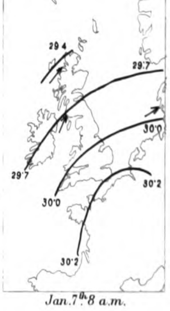
* No Trace or Out of Action.

FIG. 5


29.1
29.3
29.3
29.7
29.7
30.0
30.0
30.3
30.3

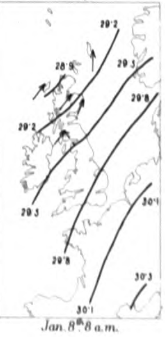
Jan. 6th 8 a.m.

FIG. 6


29.4
29.7
30.0
29.7
30.0
30.2
30.2

Jan. 7th 8 a.m.

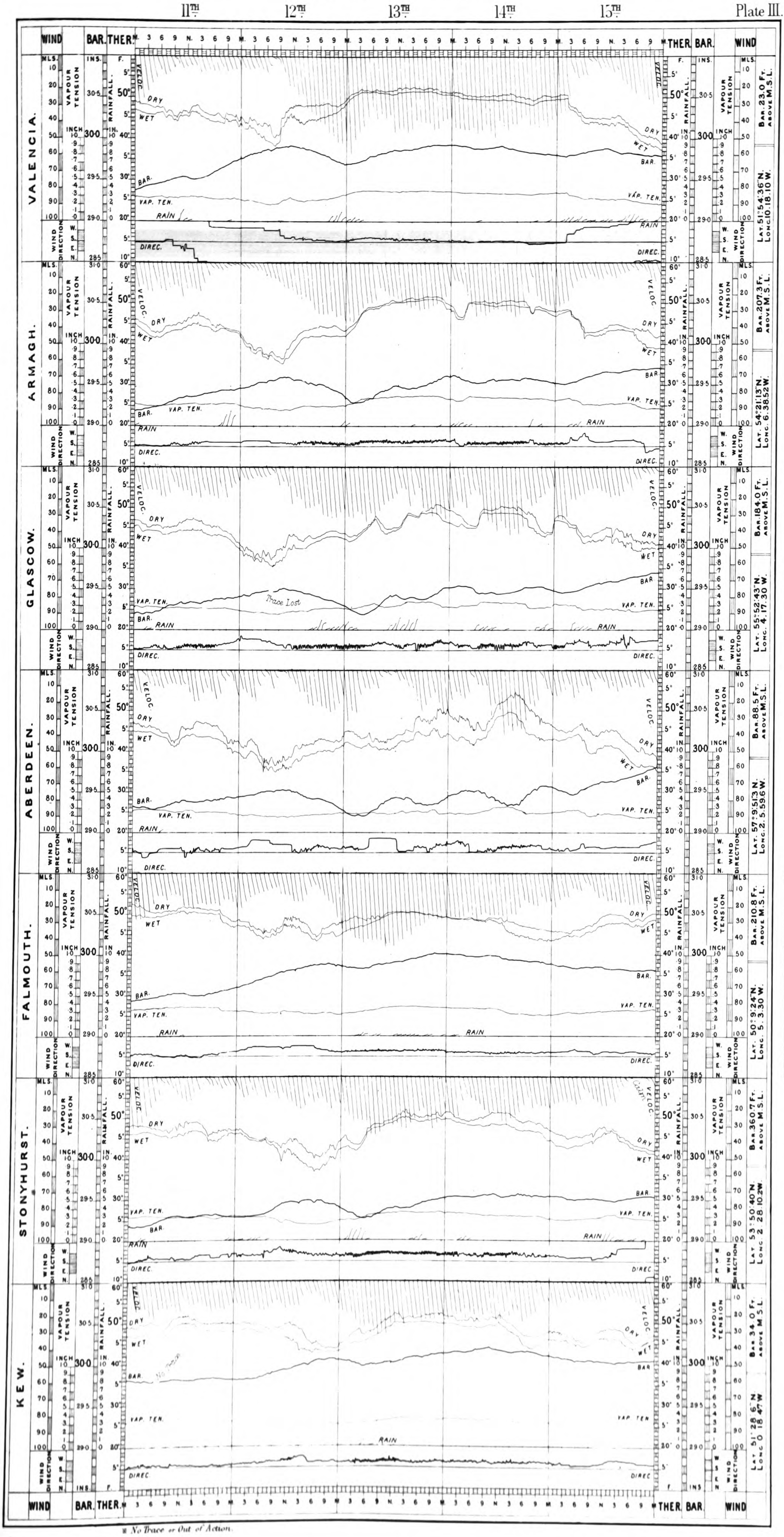
FIG. 7


29.2
29.5
29.3
29.8
29.2
29.3
30.1
29.8
30.3
30.1

Jan. 8th 8 a.m.

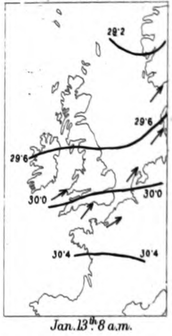
JANUARY, — 1873.

Plate III.



* No Trace or Out of Action.

FIG. 8


29·2
29·6
29·6
30·0
30·0
30·4
30·4

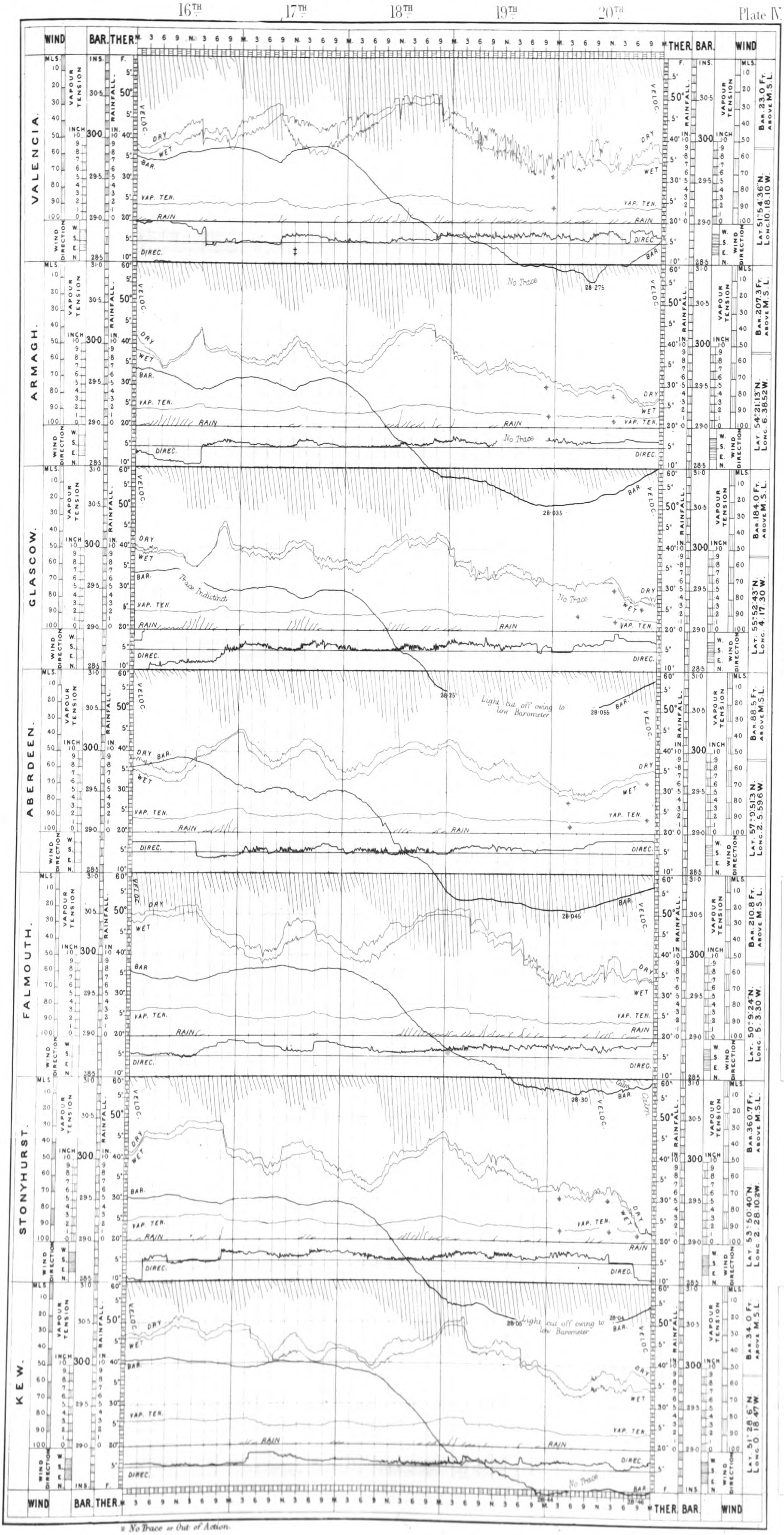
Jan. 13th 8 a.m.

FIG. 9

29·2
29·6
29·6
30·0
30·0
30·4
30·4

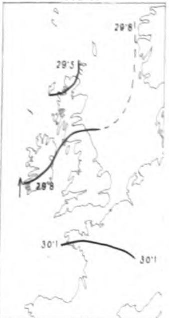
Jan. 14th 8 a.m.

JANUARY, — 1873.



* No Trace or Out of Action.

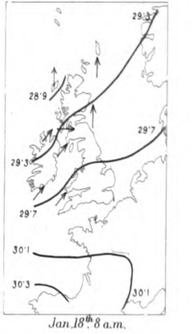
FIG. 10


29·8
29·3
28·8
30·1
30·1

Jan. 17th 8 a.m.

‡ Direction trace at Valencia incorrect, see note Plate VIII.

FIG. 11


29·3
28·9
29·7
29·3
29·7
30·1
30·3
30·1

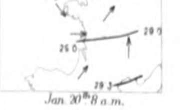
Jan. 18th 8 a.m.

FIG. 12

28·3
28·1
28·1
28·5
28·9
28·9
29·3
29·7
29·9

Jan. 19th 8 a.m.

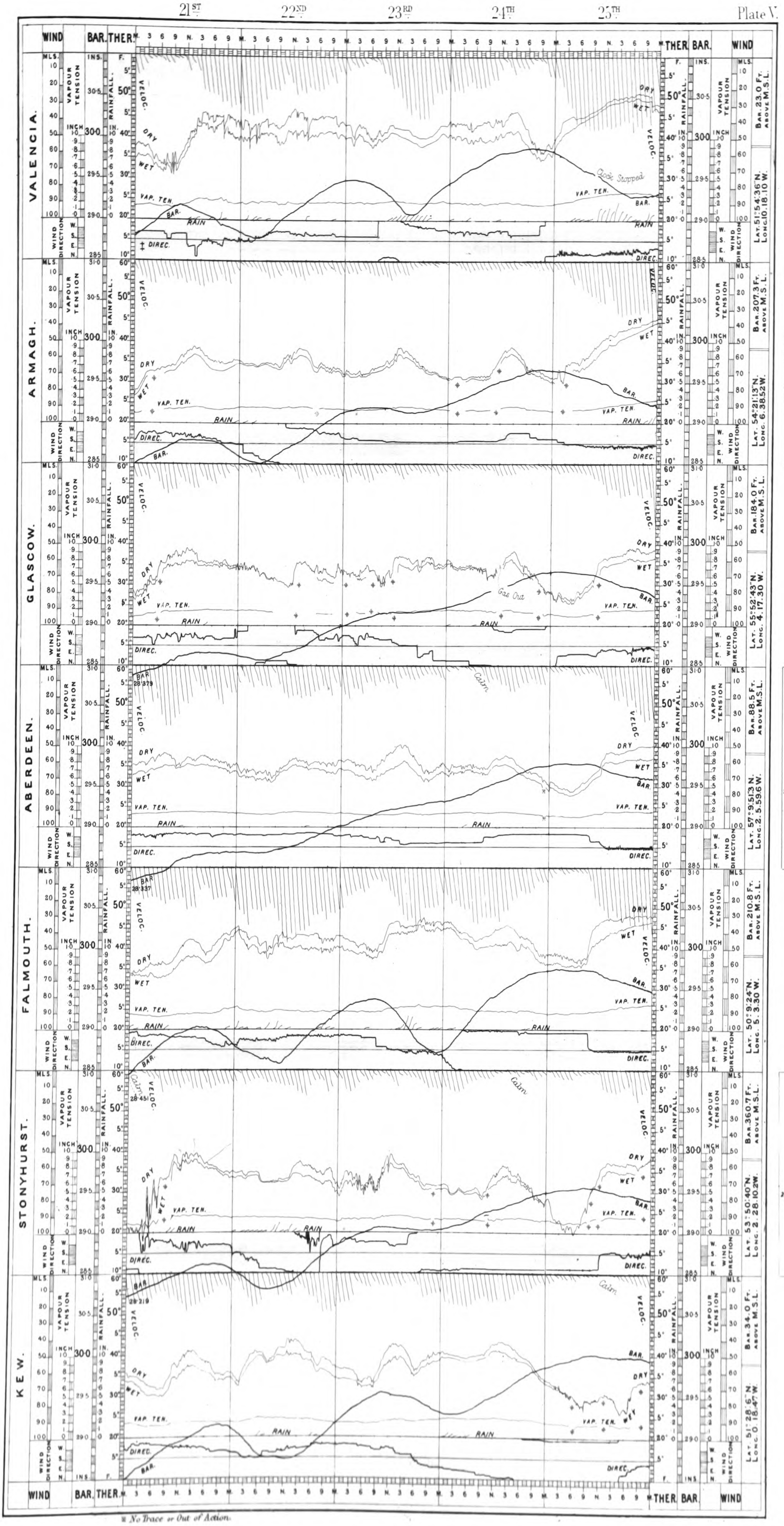
FIG. 13


28·2
28·2
28·6
28·6
29·0
29·0
29·3

Jan. 20th 8 a.m.

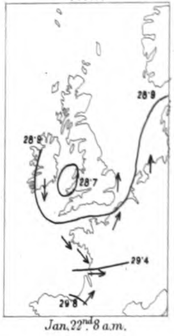
JANUARY, 1873.

Plate V.



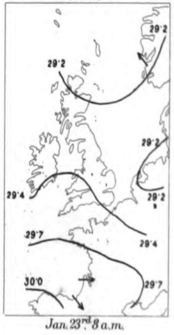
‡ Direction trace at Valentia incorrect, see note plate VIII.

FIG. 14


28·8
28·9
28·7
29·4
29·8

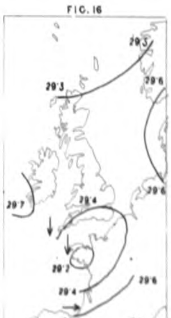
Jan. 22nd 8 a.m.

FIG. 15


29·2
29·2
29·2
29·4
29·2
29·7
29·4
30·0
29·7

Jan. 23rd 8 a.m.

FIG. 16

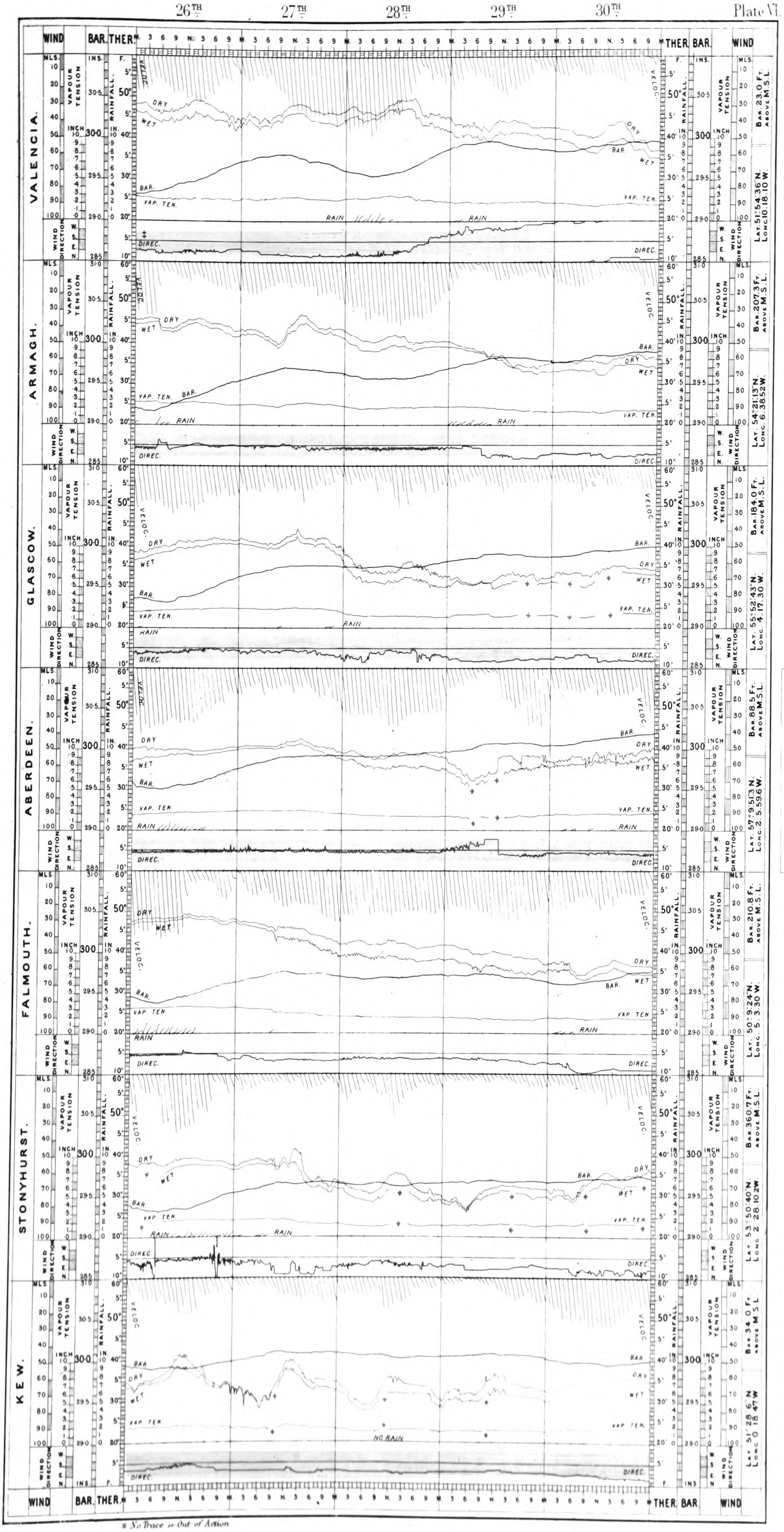

29·3
29·3
29·6
29·7
29·4
29·6
29·2
29·4
29·6
29·6

Jan. 24th 8 a.m.

✱ No Trace or Out of Action.

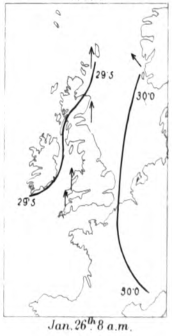
JANUARY, — 1873.

Plate VI.



‡ *Direction trace incorrect from 17th, see note to plate VIII.*

FIG. 17

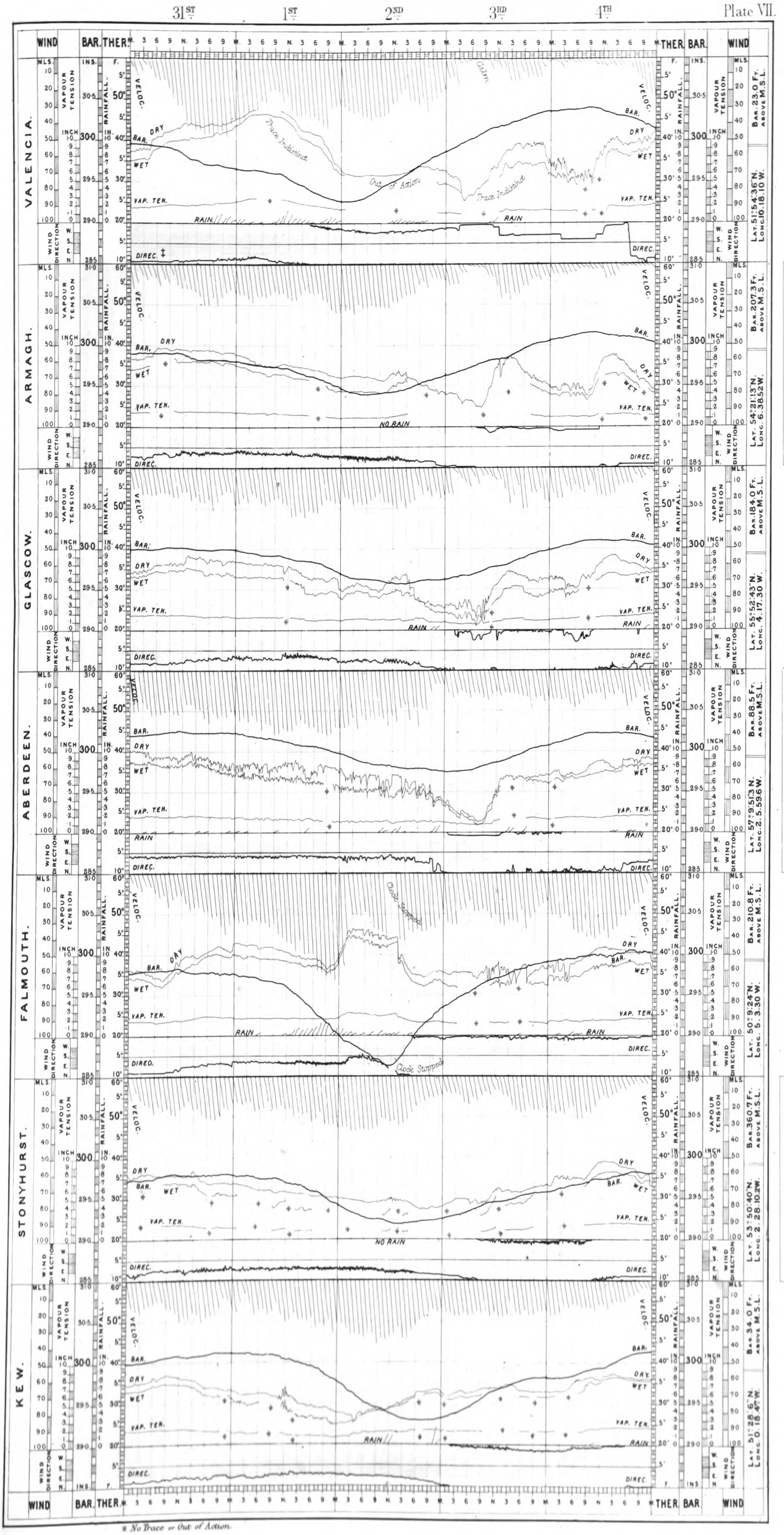

29·5
30·0
29·5
30·0

Jan. 26th 8 a.m.

* *No Trace or Out of Action*

JANUARY & FEBRUARY, 1873.

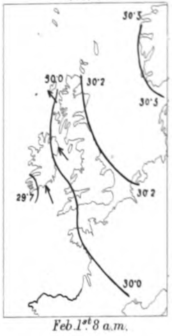
Plate VII.



* No Trace or Out of Action.

‡ Direction trace incorrect from 17th, see note to plate VIII.

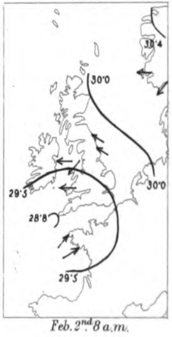
FIG. 18



30·3
30·0
30·2
30·3
29·7
30·2
30·0

Feb. 1st 8 a.m.

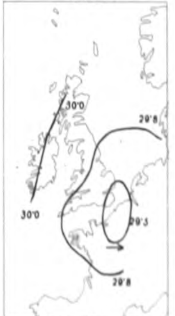
FIG. 19



30·4
30·0
29·5
28·8
30·0
29·5

Feb. 2nd 8 a.m.

FIG. 20

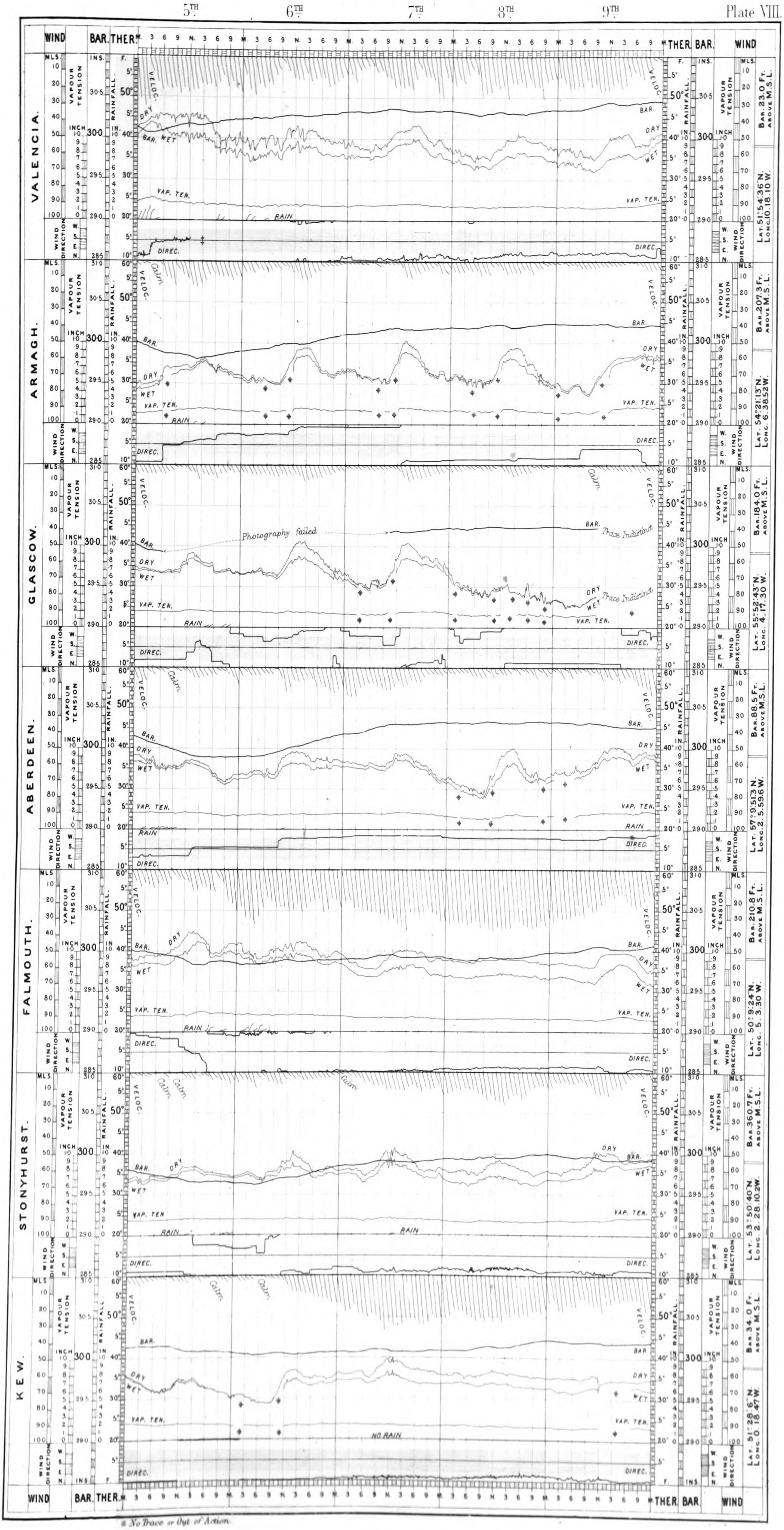


30·0
29·8
30·0
29·3
29·8

Feb. 3rd 8 a.m.

FEBRUARY, 1873

Plate VIII.

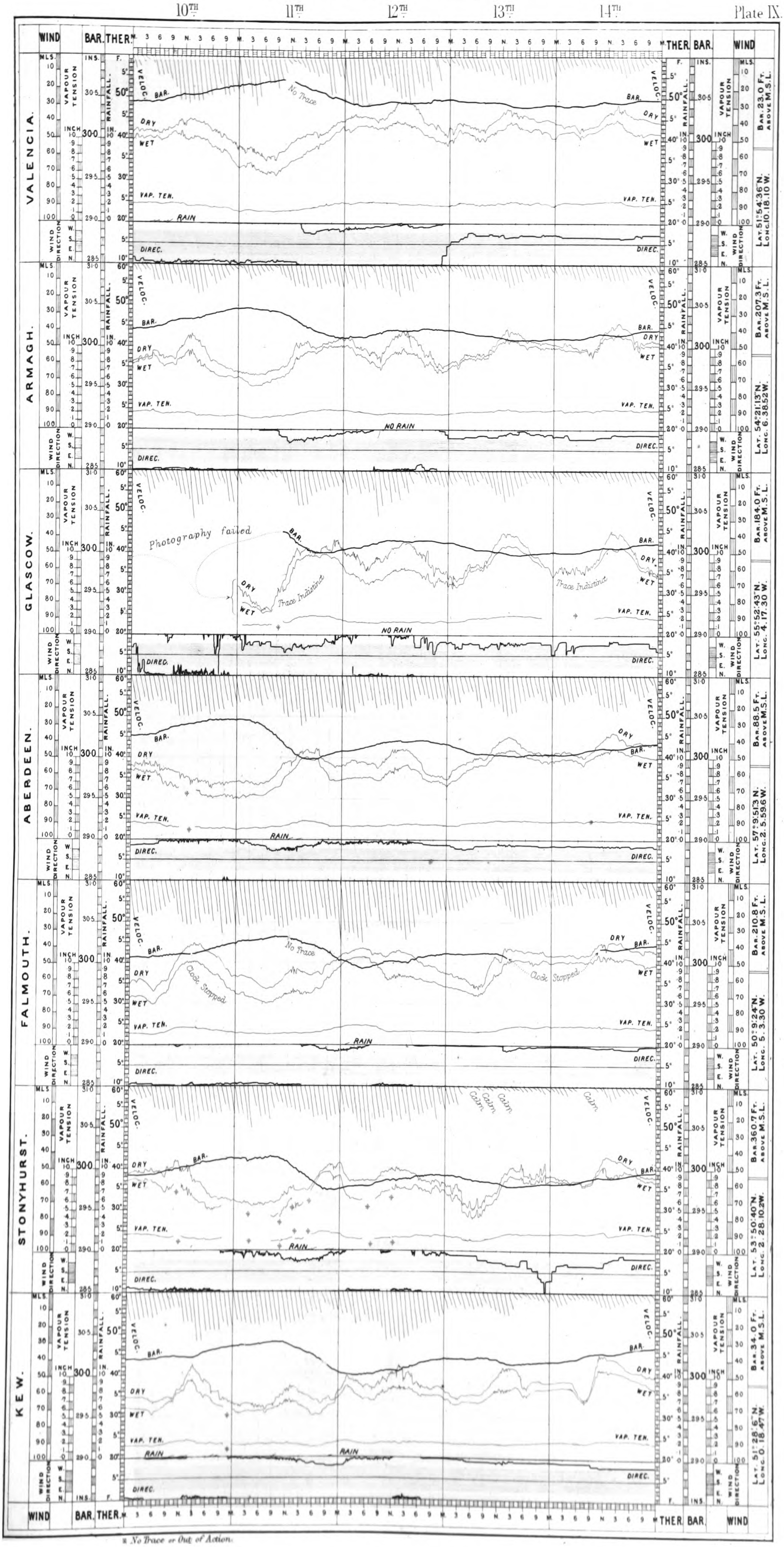


* No Trace or Out of Action.

‡ The Direction pencil of the Anemograph at Valencia was discovered to be out of order on Feb 5th and it appears to have been marking incorrectly from the 17th Jan at 8 a.m.

FEBRUARY, —1873.

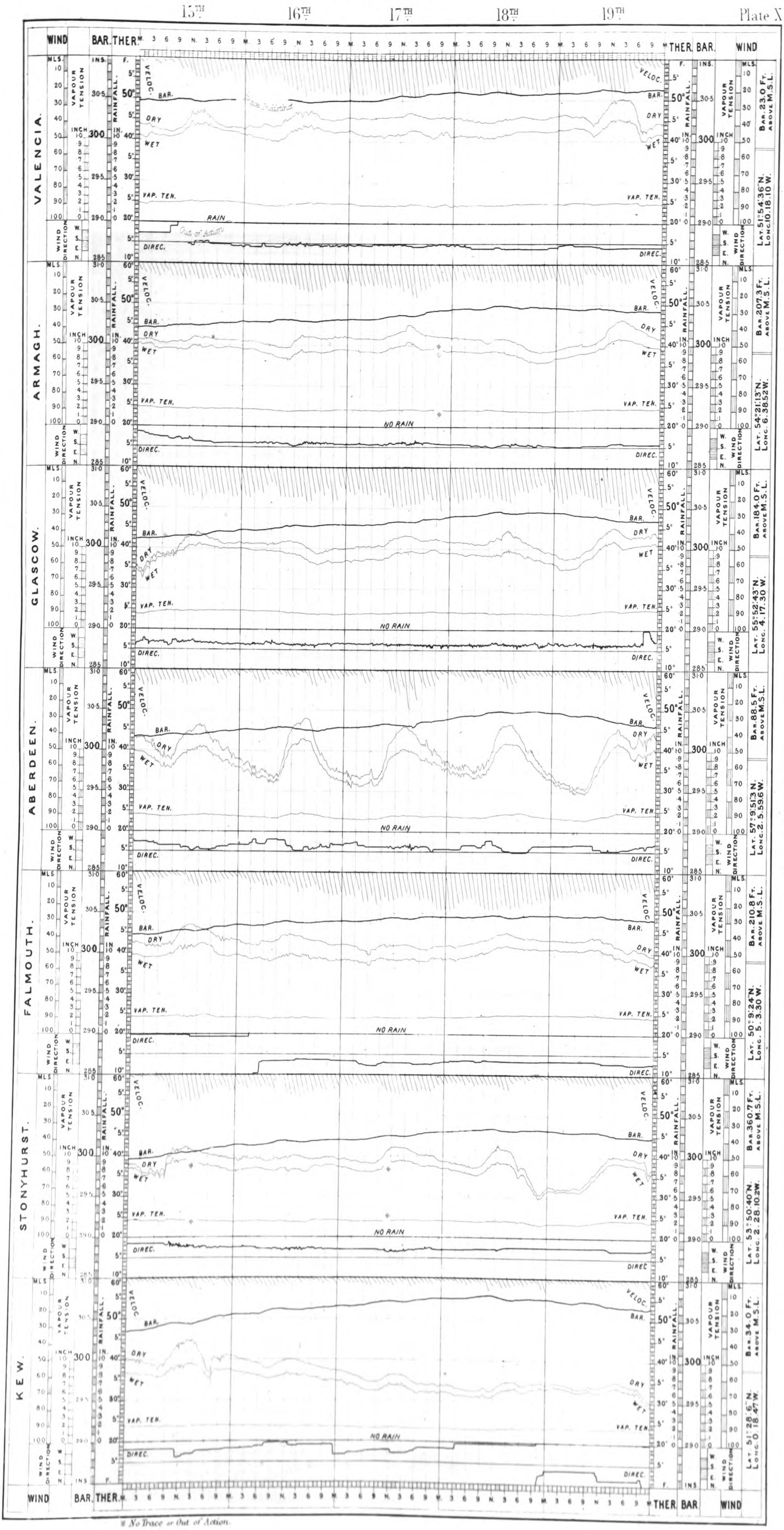
Plate IX.



* No Trace or Out of Action.

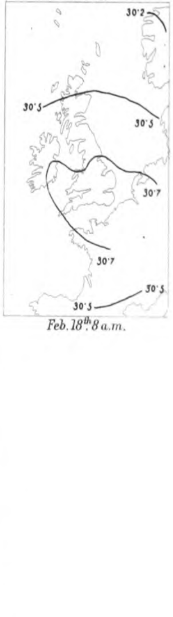
FEBRUARY, — 1873.

Plate X.



* No Trace or Out of Action.

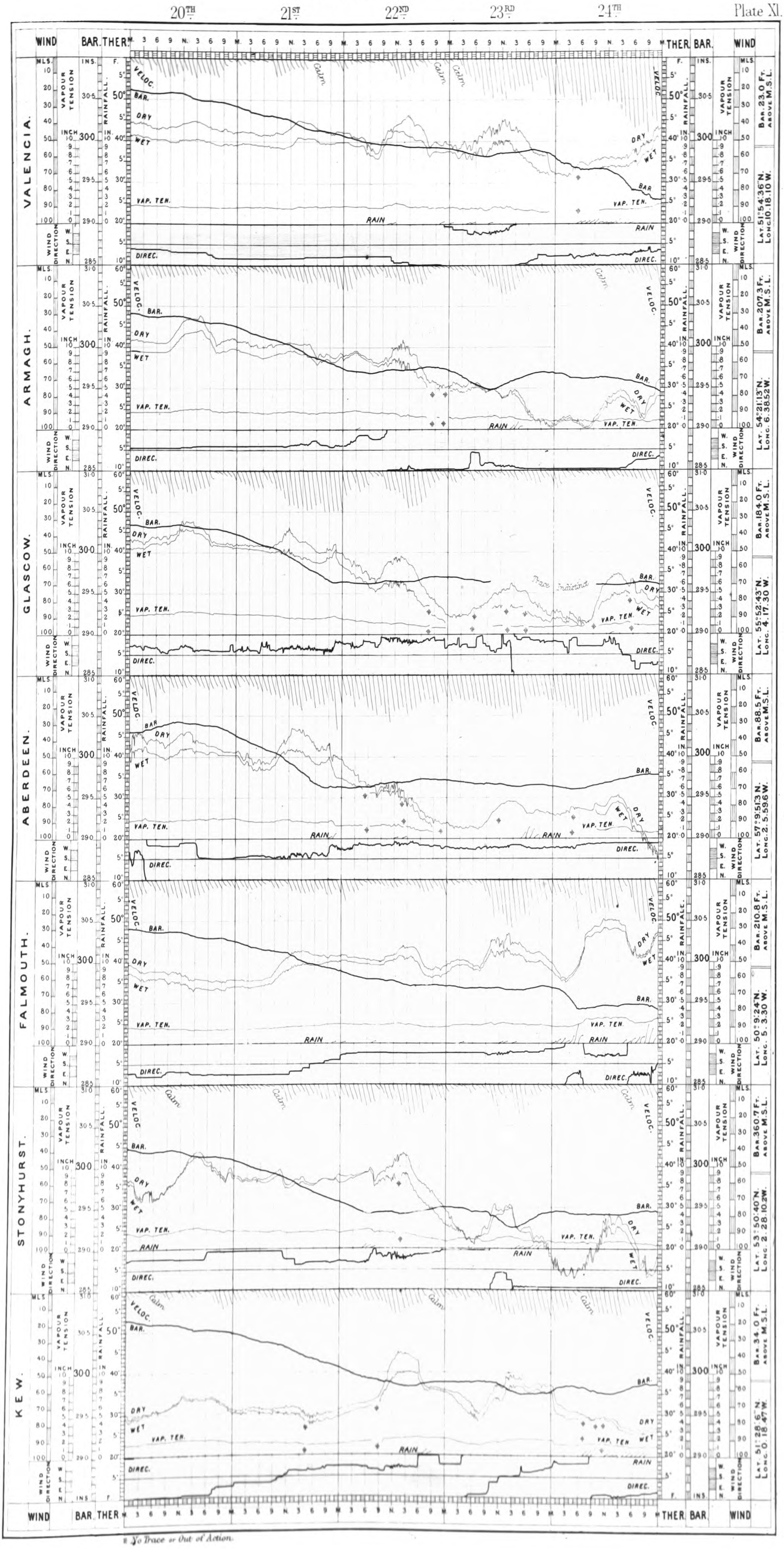
FIG. 21


30·2
30·5
30·5
30·7
30·7
30·5
30·5

Feb. 18th 8 a.m.

FEBRUARY, 1873

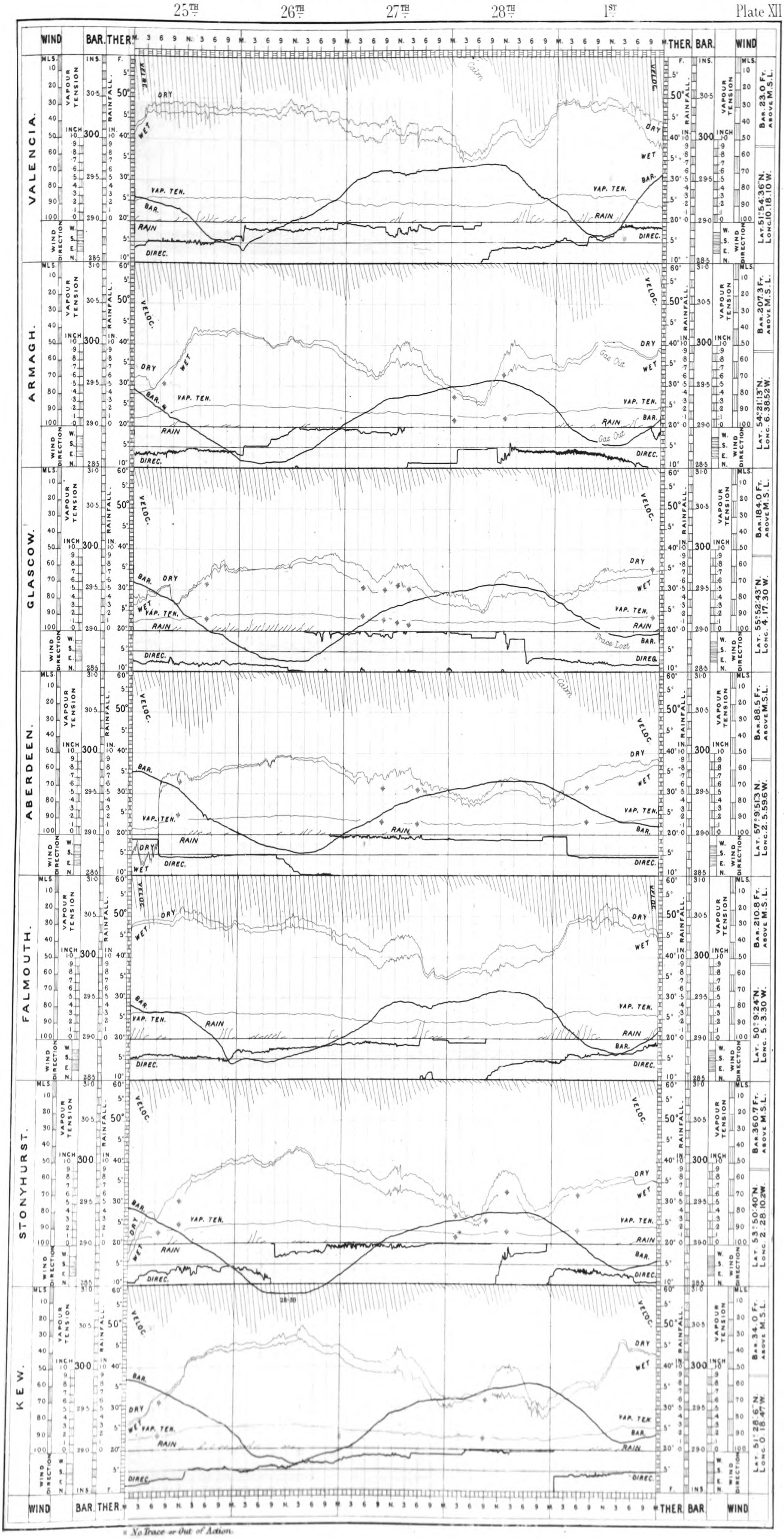
Plate XI.



* No Trace or Out of Action.

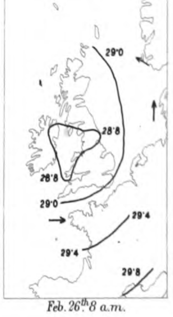
FEBRUARY & MARCH, _ 1873.

Plate XII.



= No Trace or Out of Action.

FIG. 22


29·0
28·8
29·0
29·4
29·4
29·8

Feb. 26th 8 a.m.

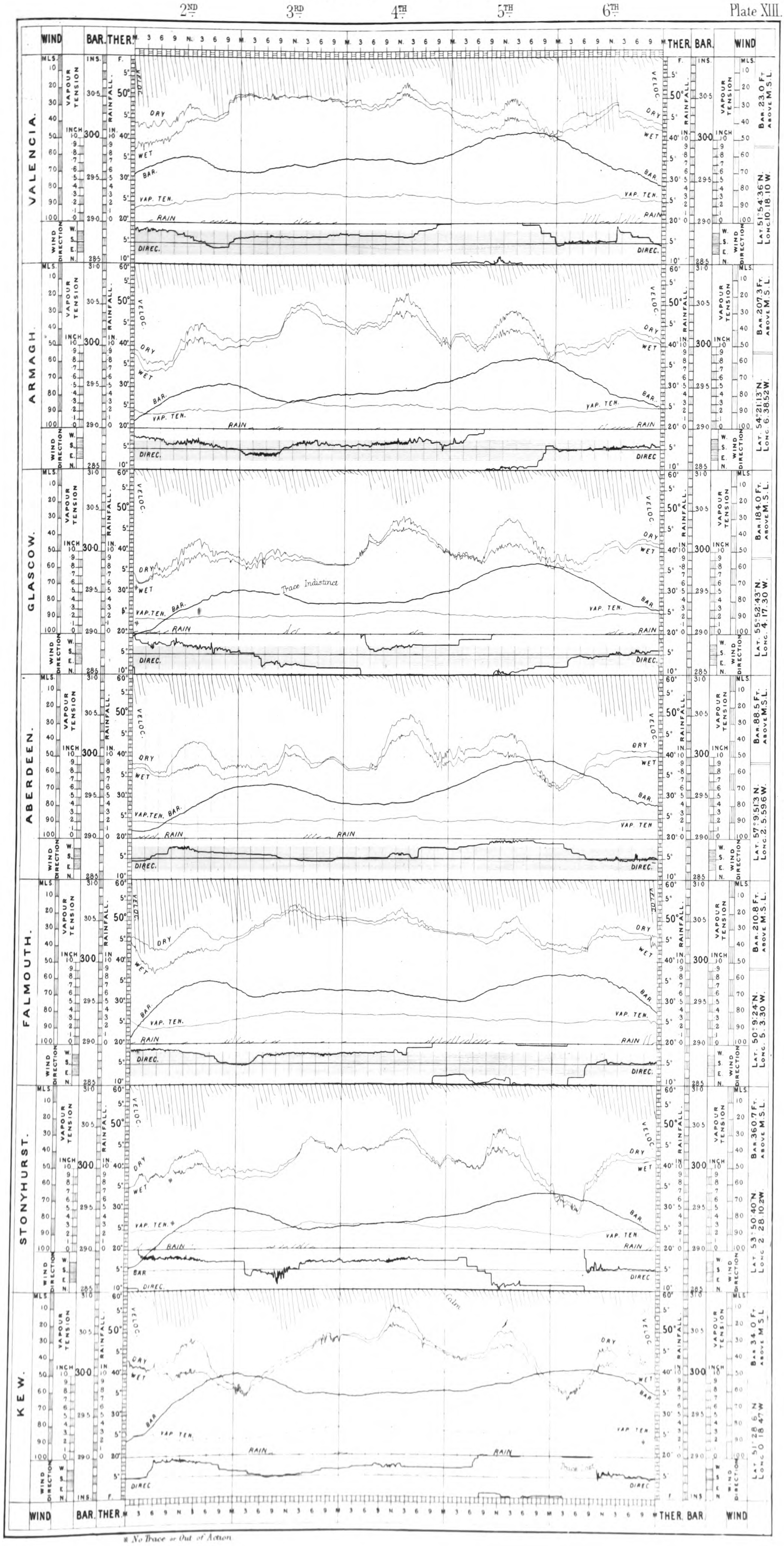
FIG. 23

29·2
29·3
29·7
29·0
29·2
29·3
29·7

March 1st 8 a.m.

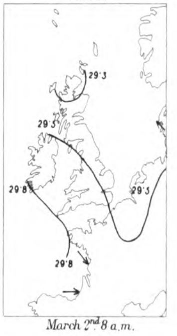
MARCH, — 1873.

Plate XIII.



* No Trace = Out of Action

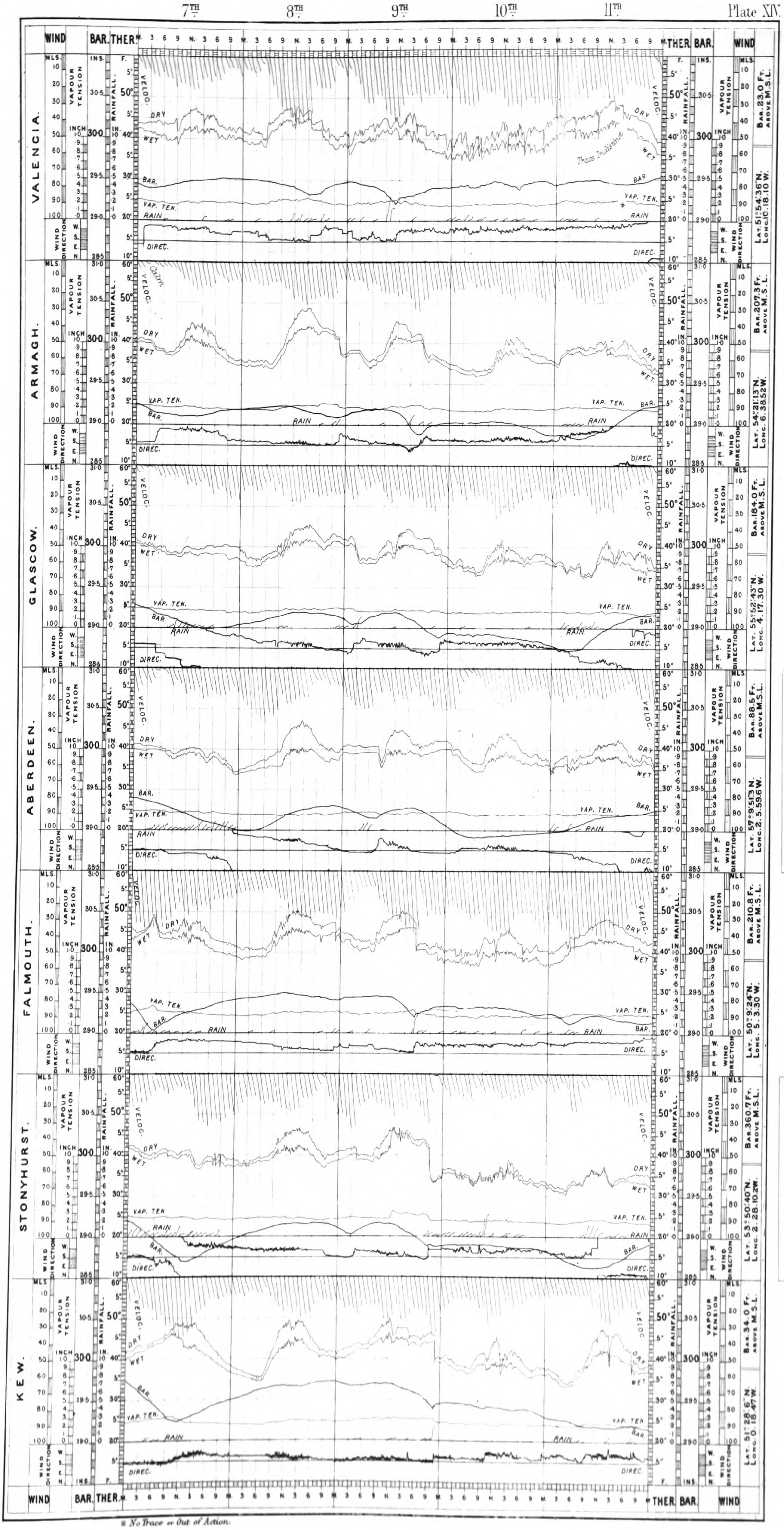
FIG. 24


29·3
29·5
29·8
29·3
29·8

March 2nd 8 a.m.

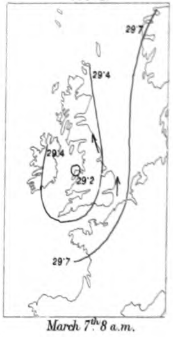
MARCH, — 1873.

Plate XIV.



* No Trace or Out of Action.

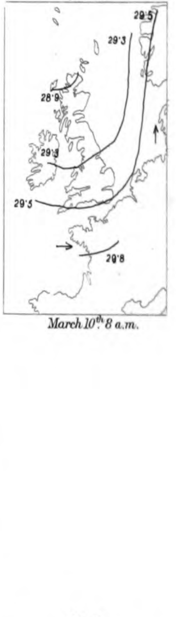
FIG. 25



29·7
29·4
29·4
29·2
29·7

March 7th 8 a.m.

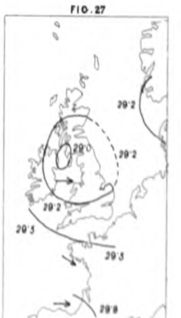
FIG. 26



29·5
29·3
28·9
29·5
29·8

March 10th 8 a.m.

FIG. 27

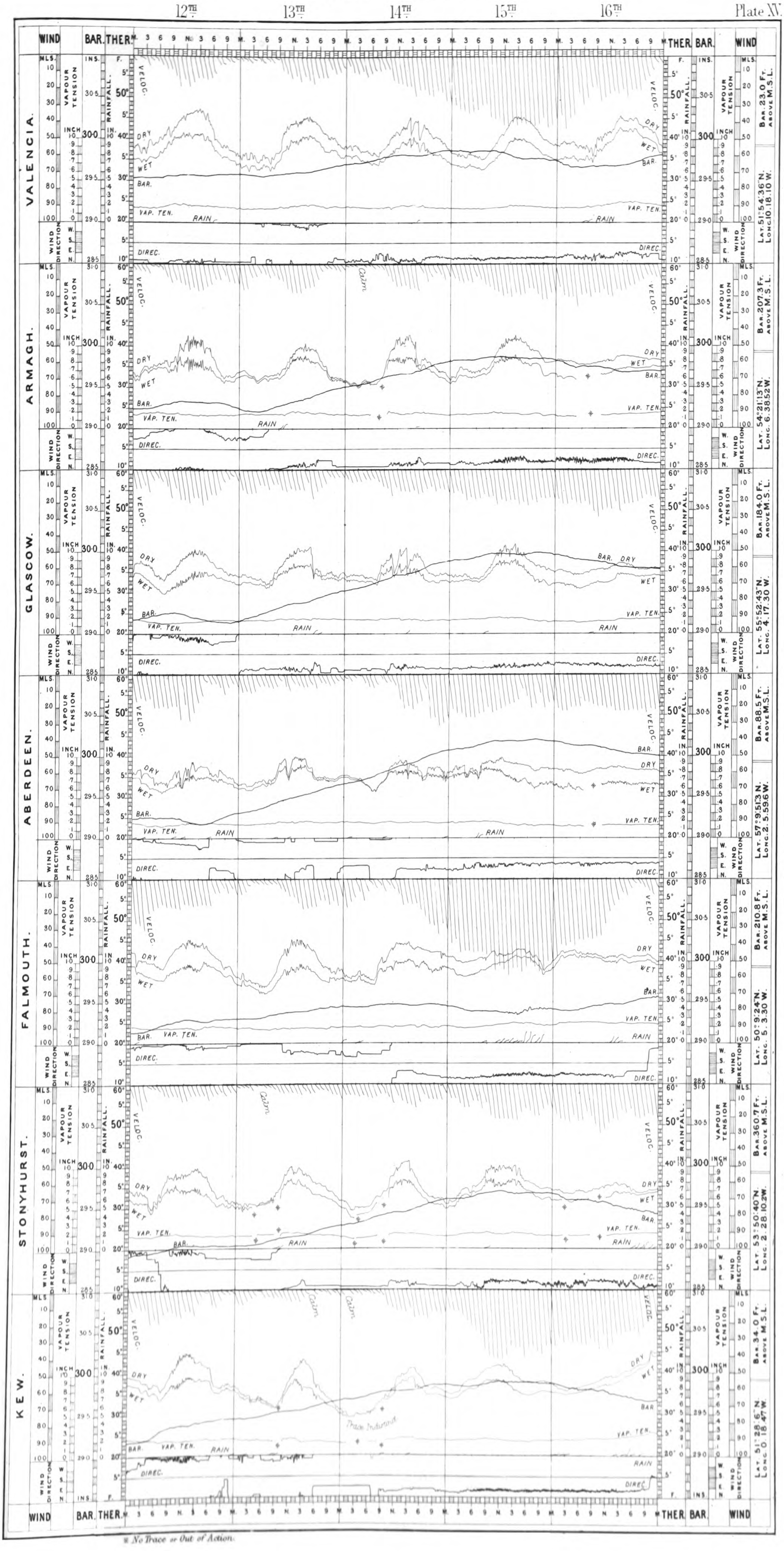


29·2
29·2
29·0
29·3
29·2
29·3
29·8

March 11th 8 a.m.

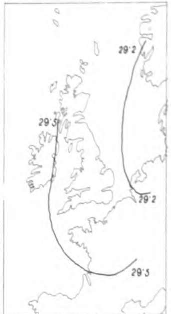
MARCH — 1873.

Plate XV.



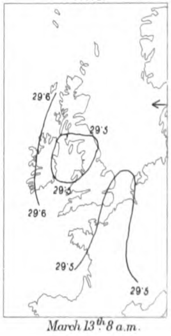
* No Trace or Out of Action.

FIG. 28


29.2
29.5
29.2
29.5

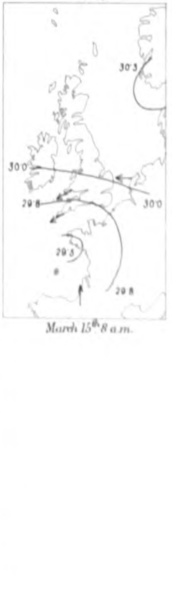
March 12th 8 a.m.

FIG. 29


29.6
29.5
29.5
29.6
29.5
29.5

March 13th 8 a.m.

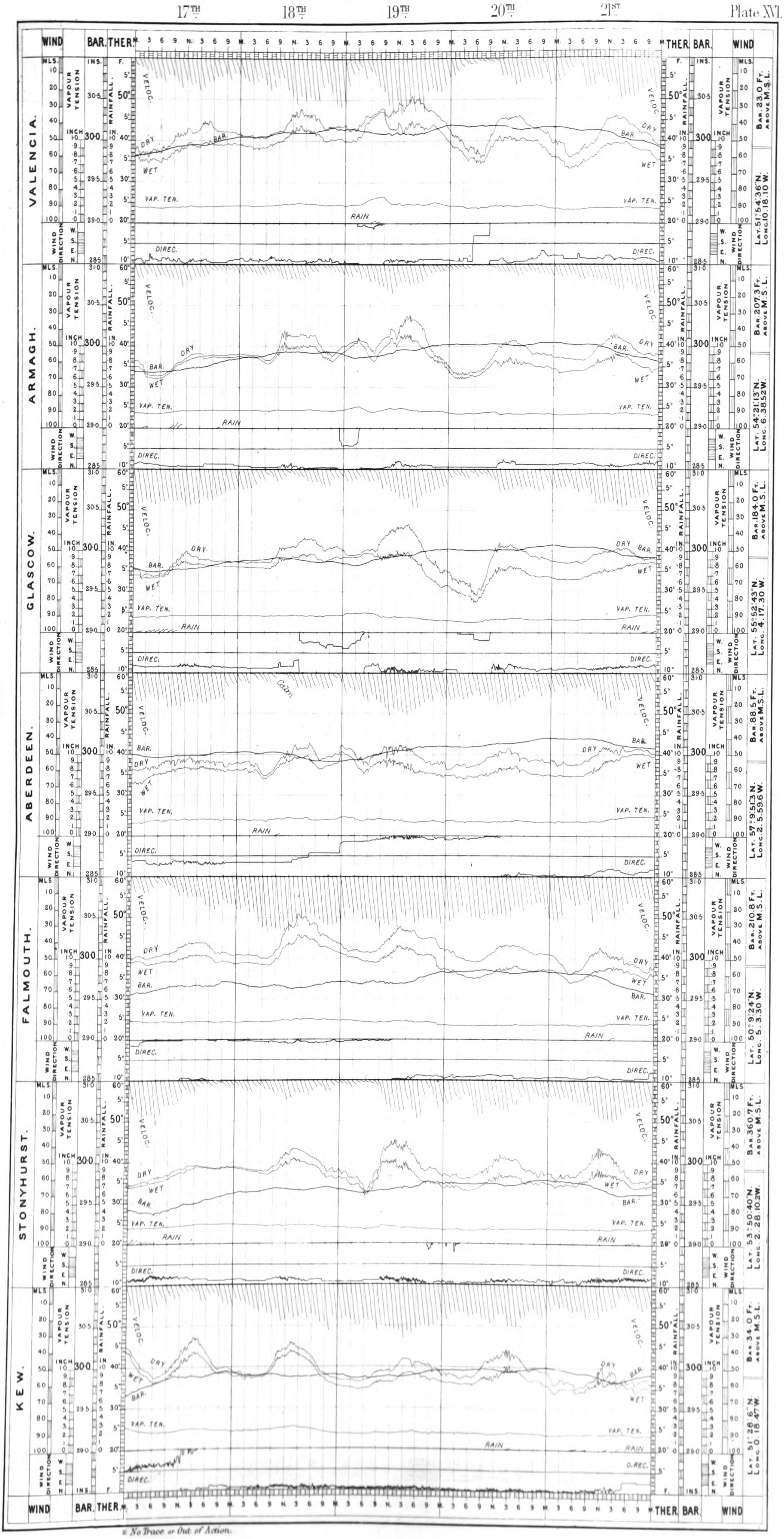
FIG. 30


30.3
30.0
30.0
29.8
29.3
29.8

March 15th 8 a.m.

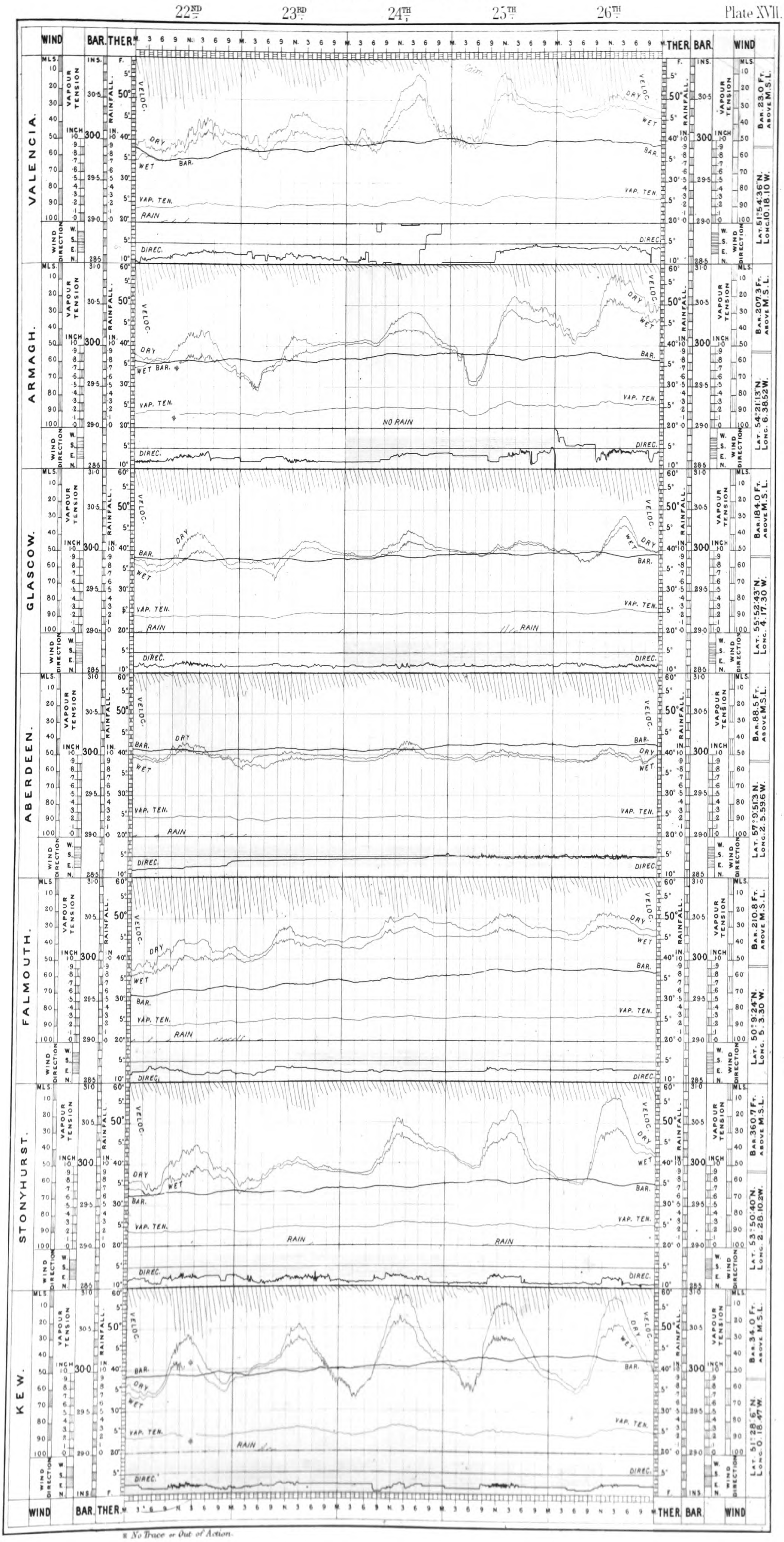
MARCH, 1873.

Plate XVI.



* No Trace or Out of Action.

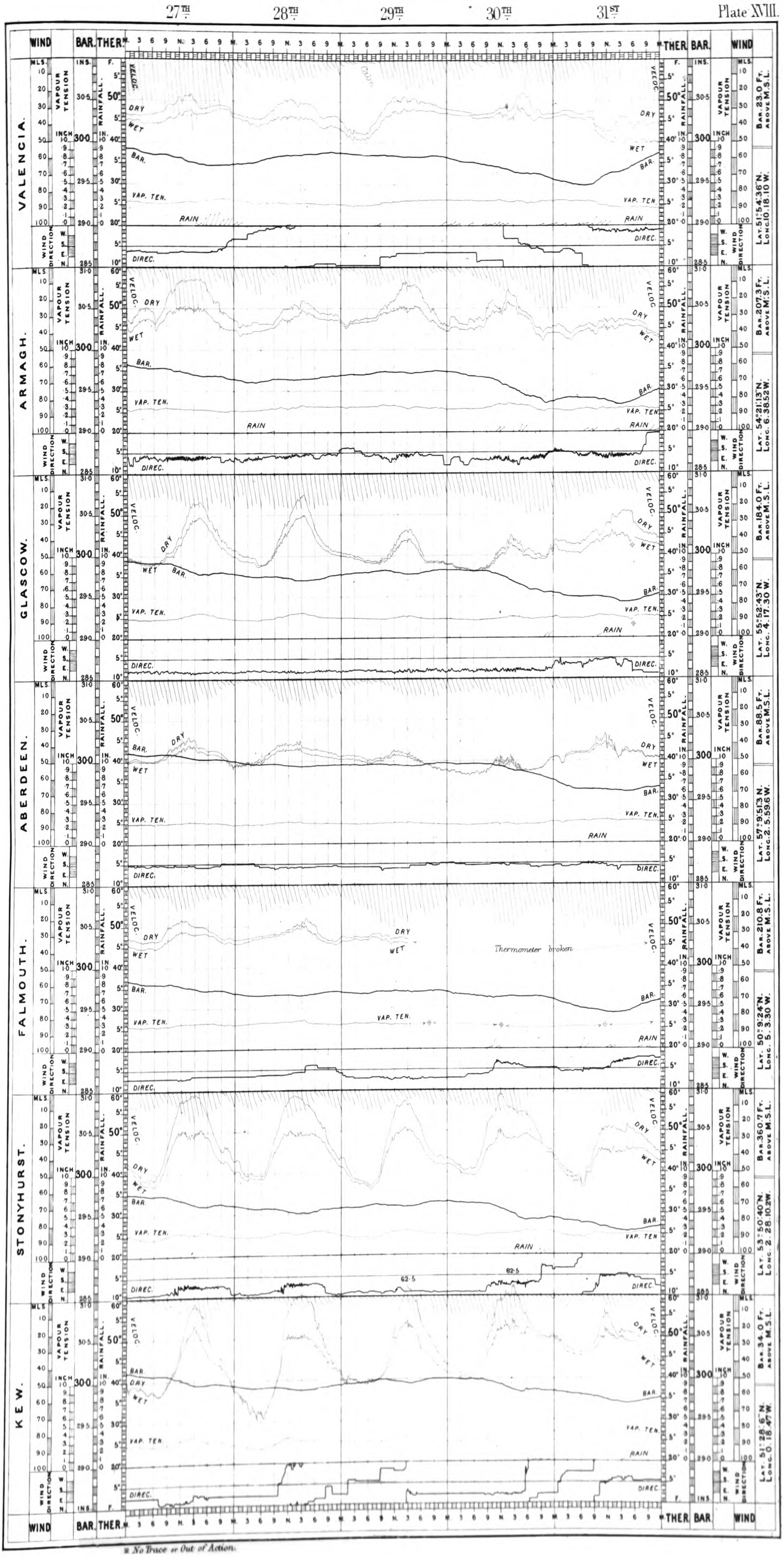
MARCH, 1873.



* No Trace or Out of Action.

MARCH.—1873

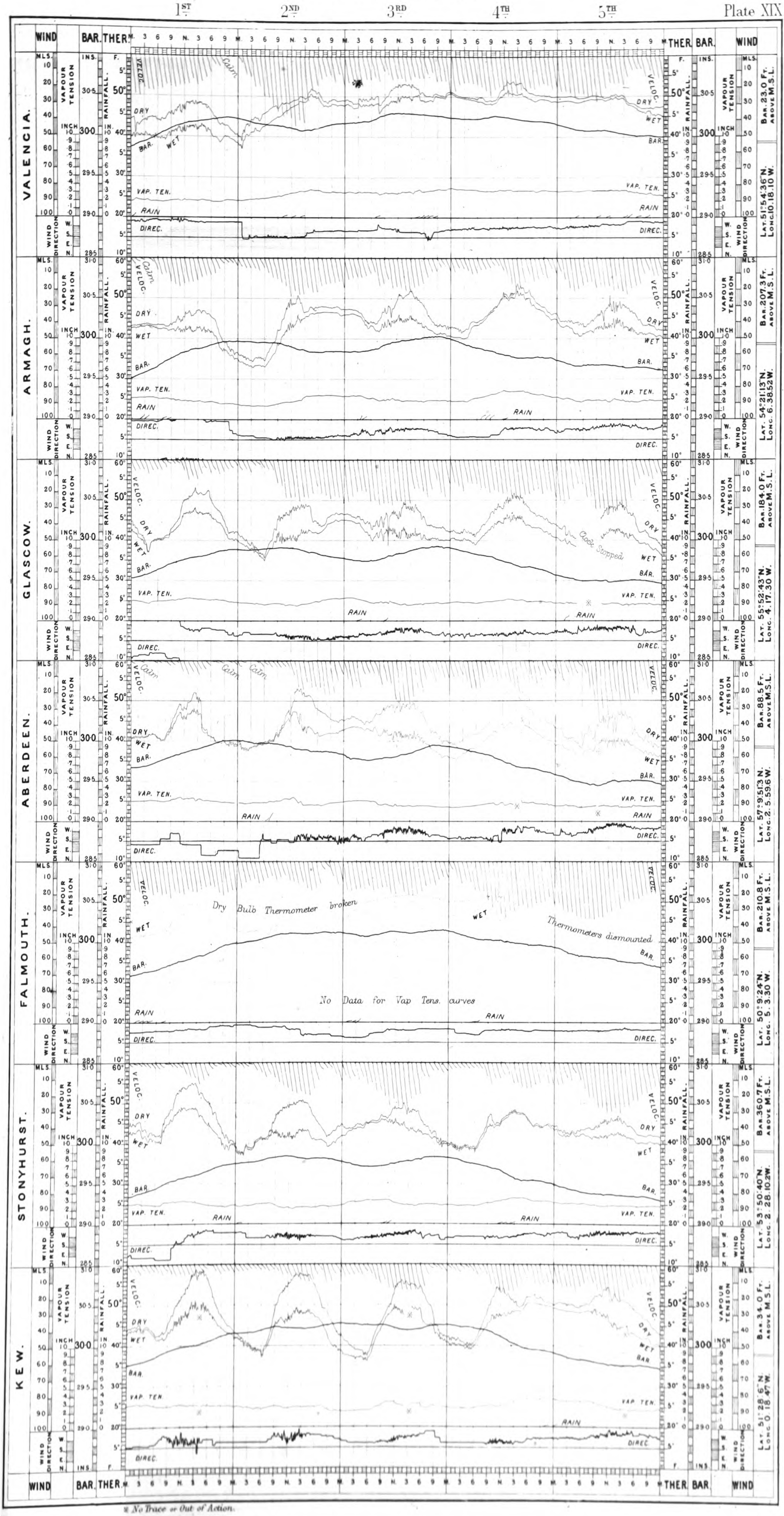
Plate XVIII.



■ No Trace or Out of Action.

APRIL. — 1873.

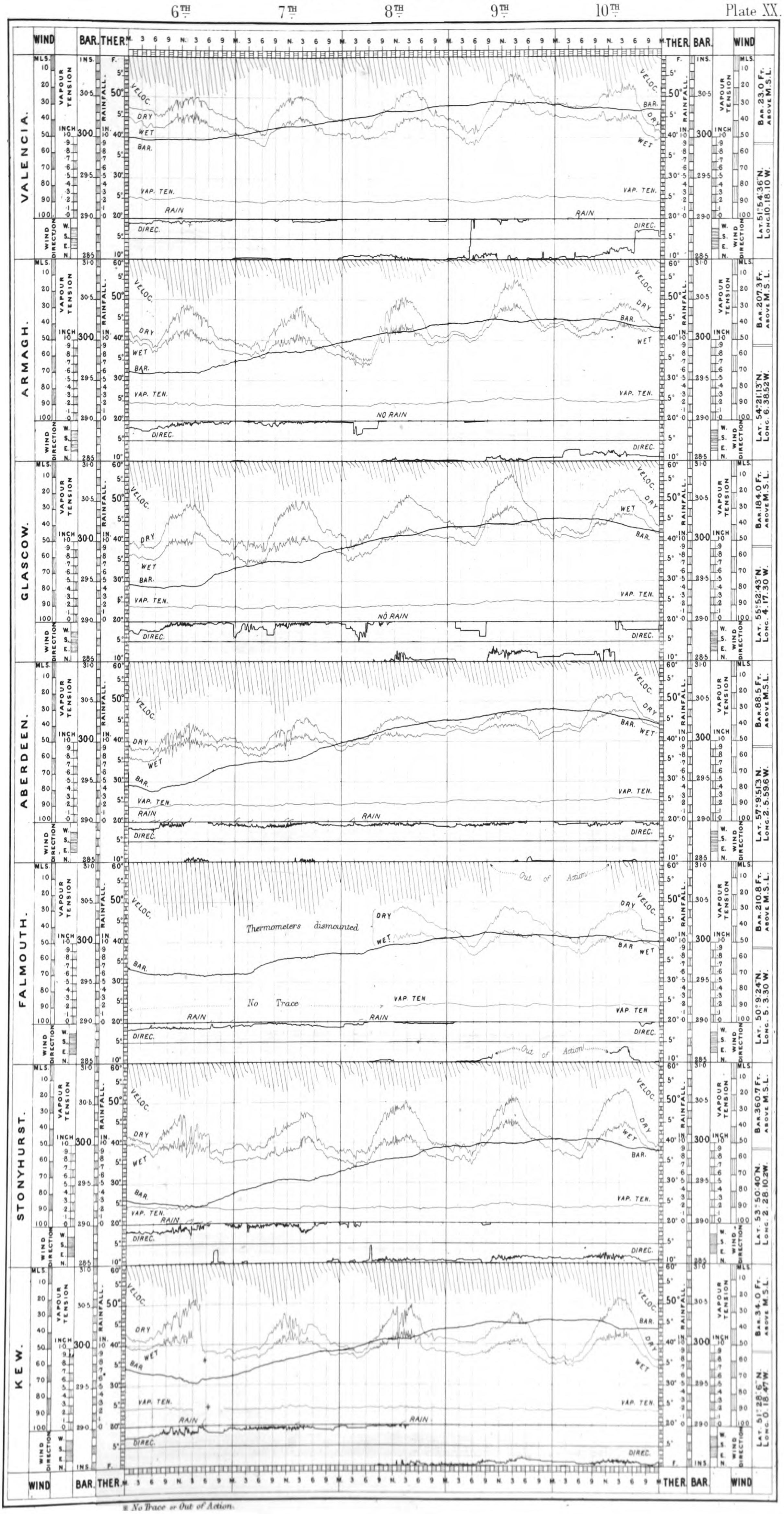
Plate XIX.



× No Trace or Out of Action.

APRIL, — 1873

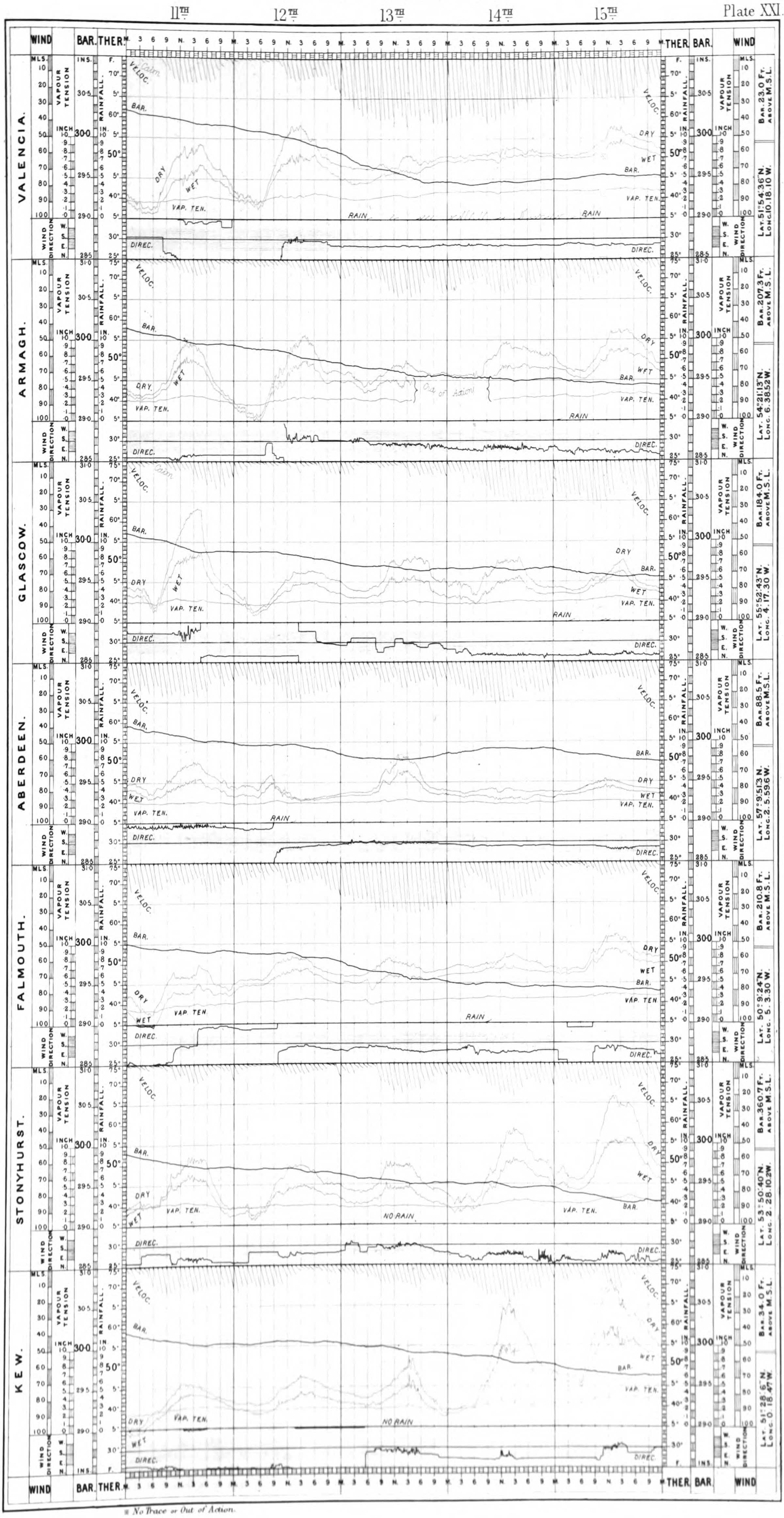
Plate XX.



✱ No Trace or Out of Action.

APRIL, _ 1873.

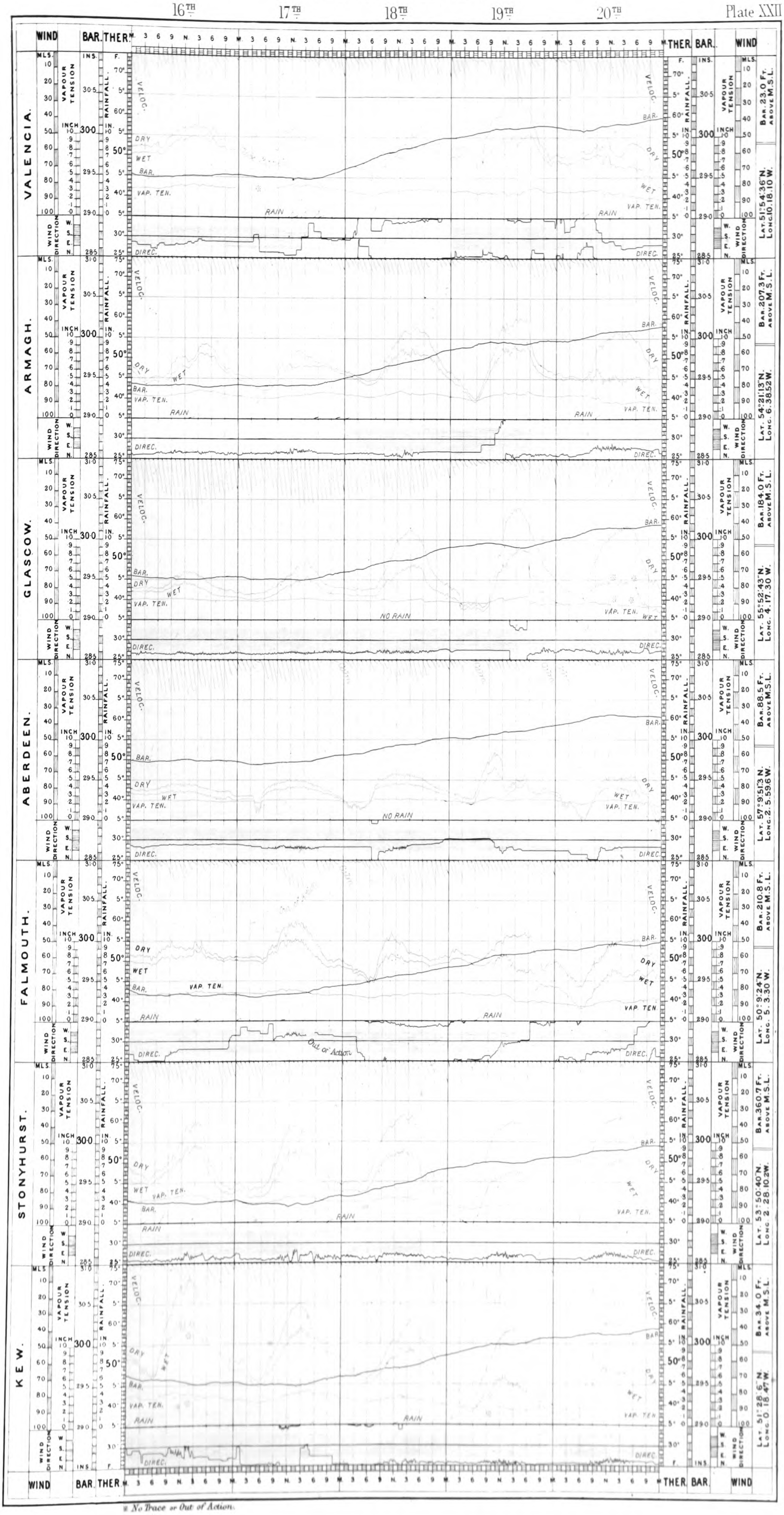
Plate XXI.



≡ No Trace or Out of Action.

APRIL._1873.

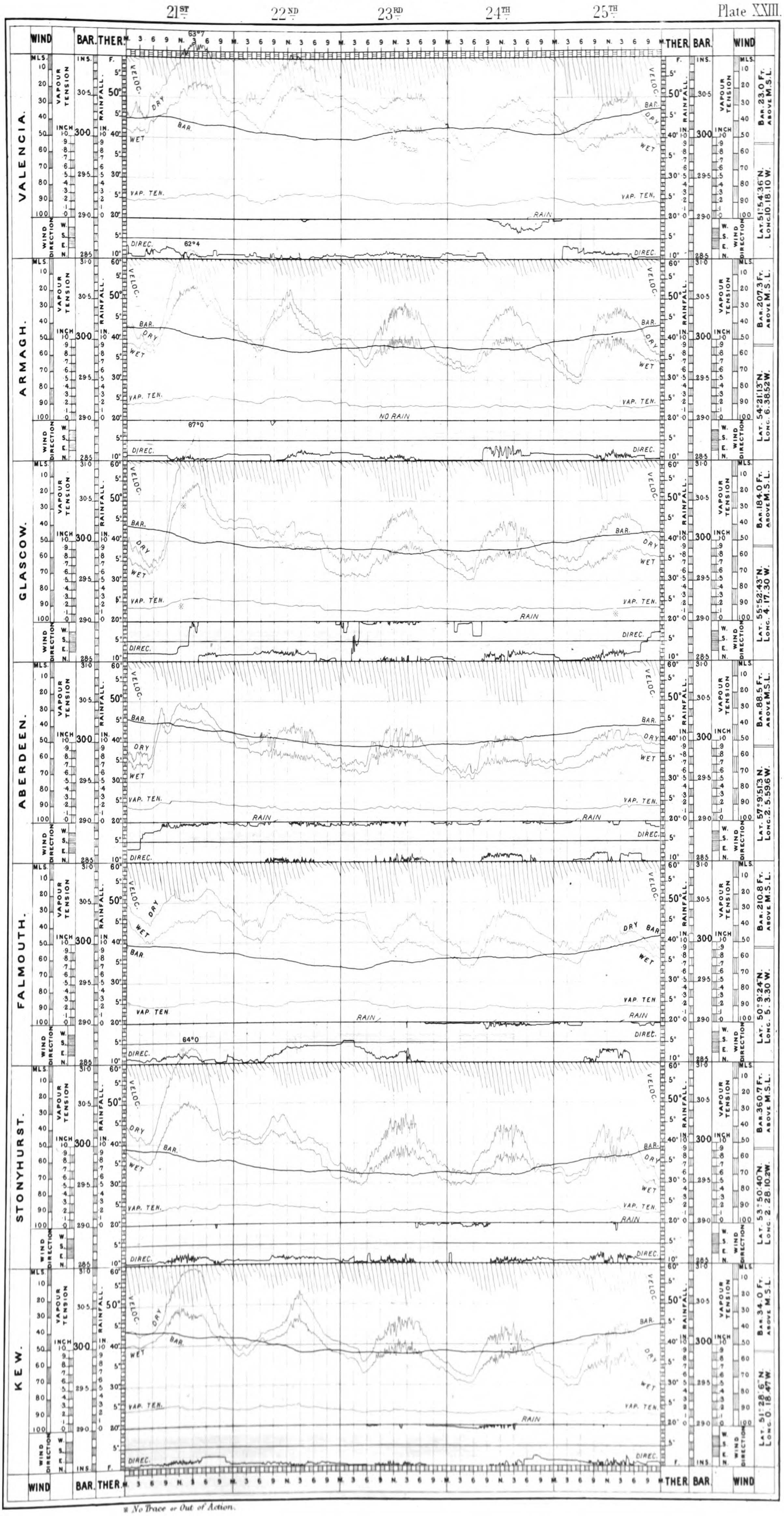
Plate XXII



* No Trace or Out of Action.

APRIL, — 1873

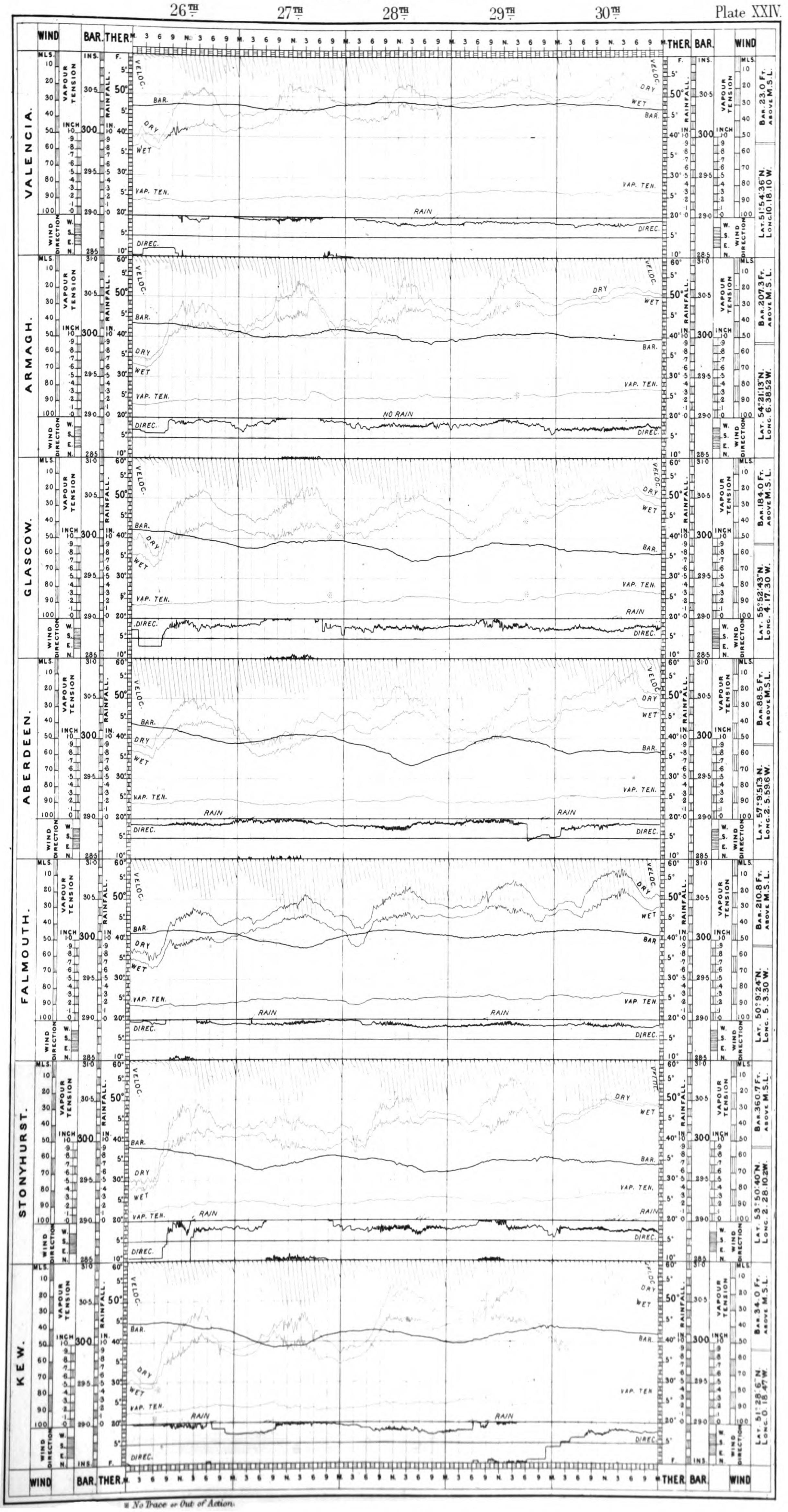
Plate XXIII.



* No Trace or Out of Action.

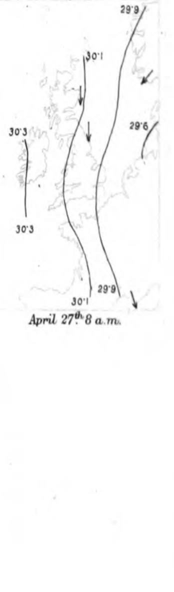
APRIL, — 1873.

Plate XXIV.



※ No Trace or Out of Action.

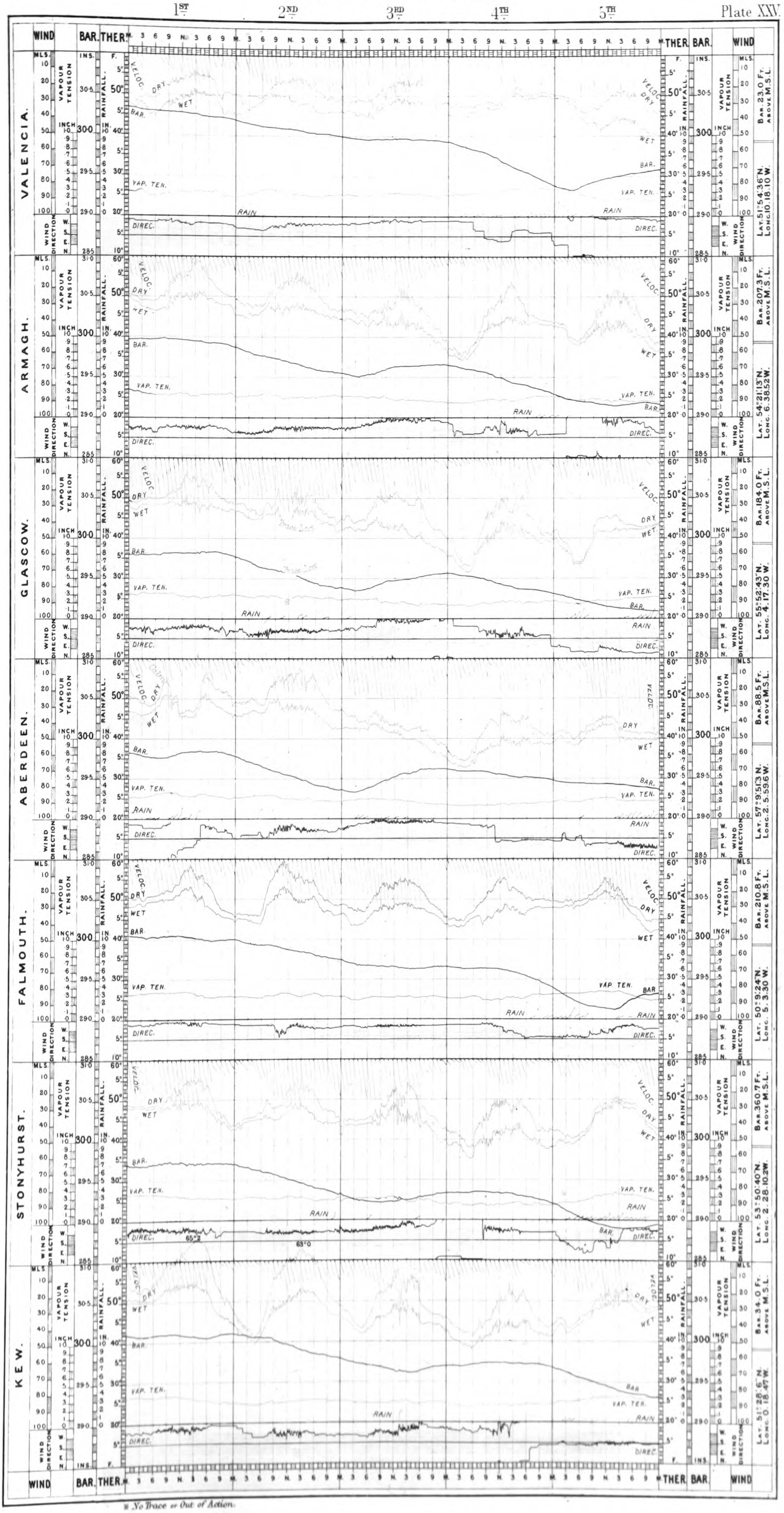
FIG. 31


29·9
30·1
29·6
30·3
30·3
30·1
29·9

April 27th 8 a.m.

MAY, — 1873.

Plate XXV.



* No Trace or Out of Action.

MAY, _1873.

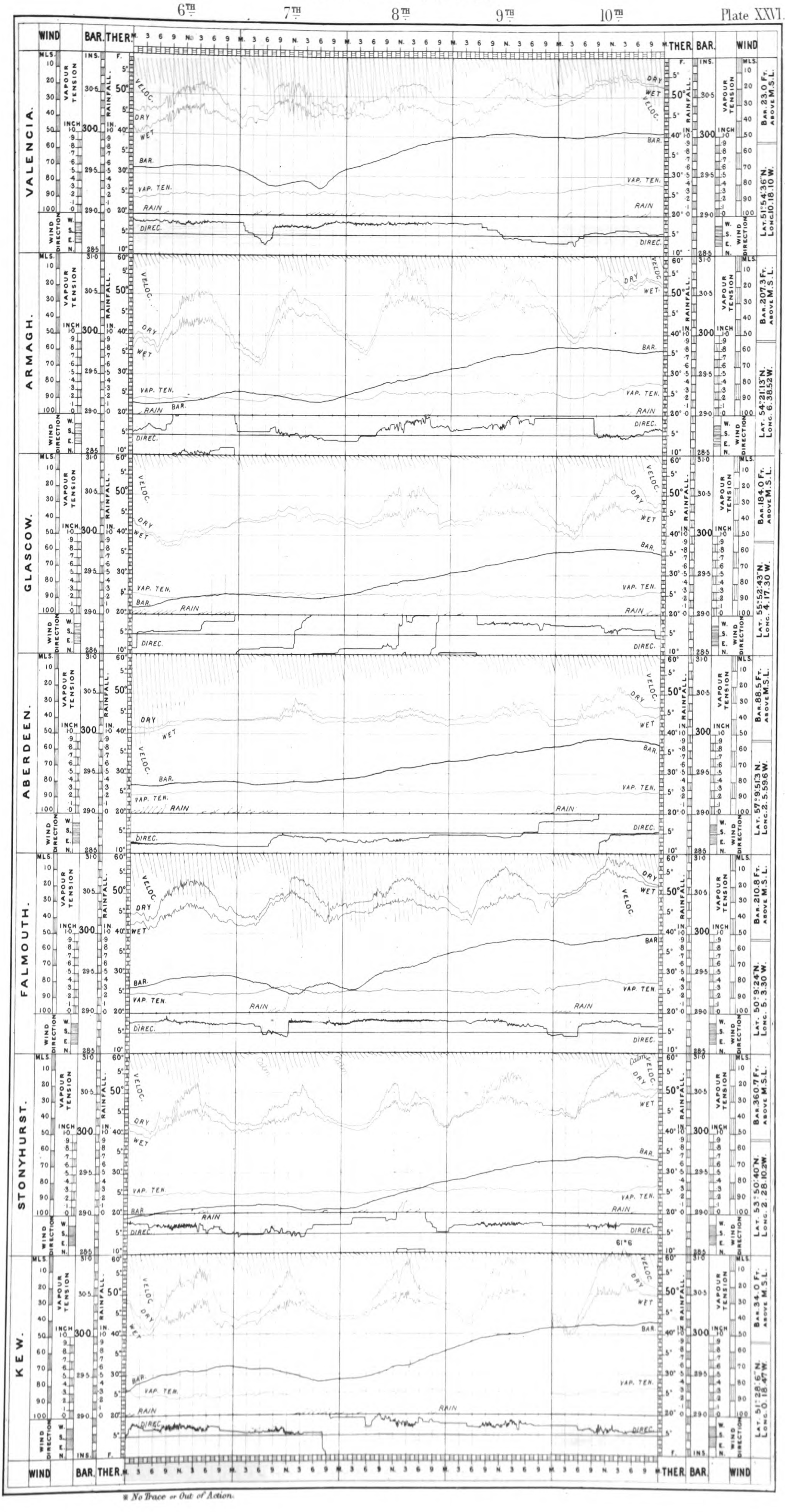
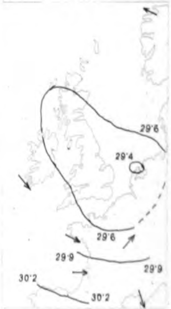


FIG. 32

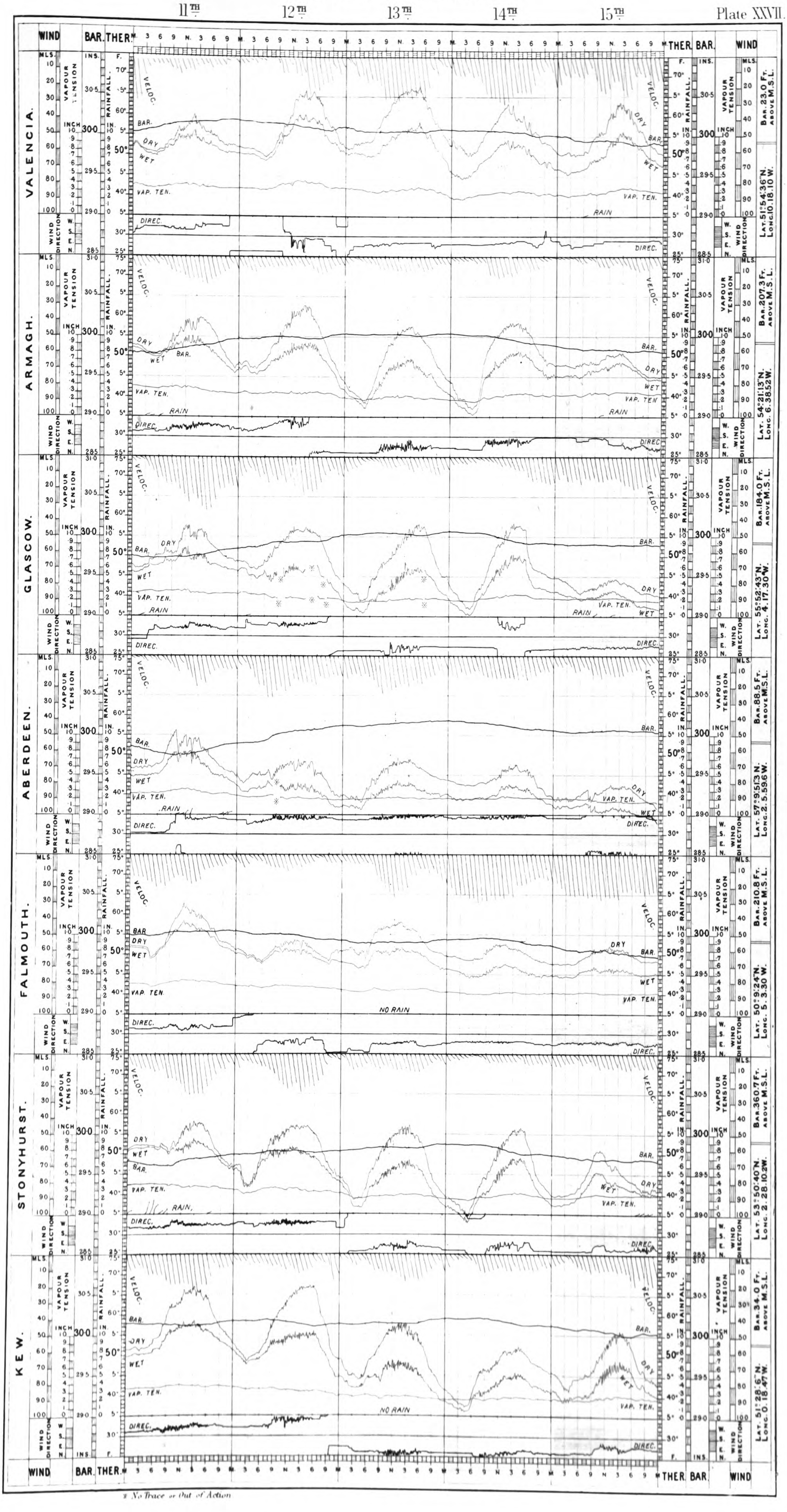

29·6
29·4
29·6
29·9
29·9
30·2
30·2

May 6th 8 a.m.

▪ No Trace or Out of Action.

MAY, — 1873.

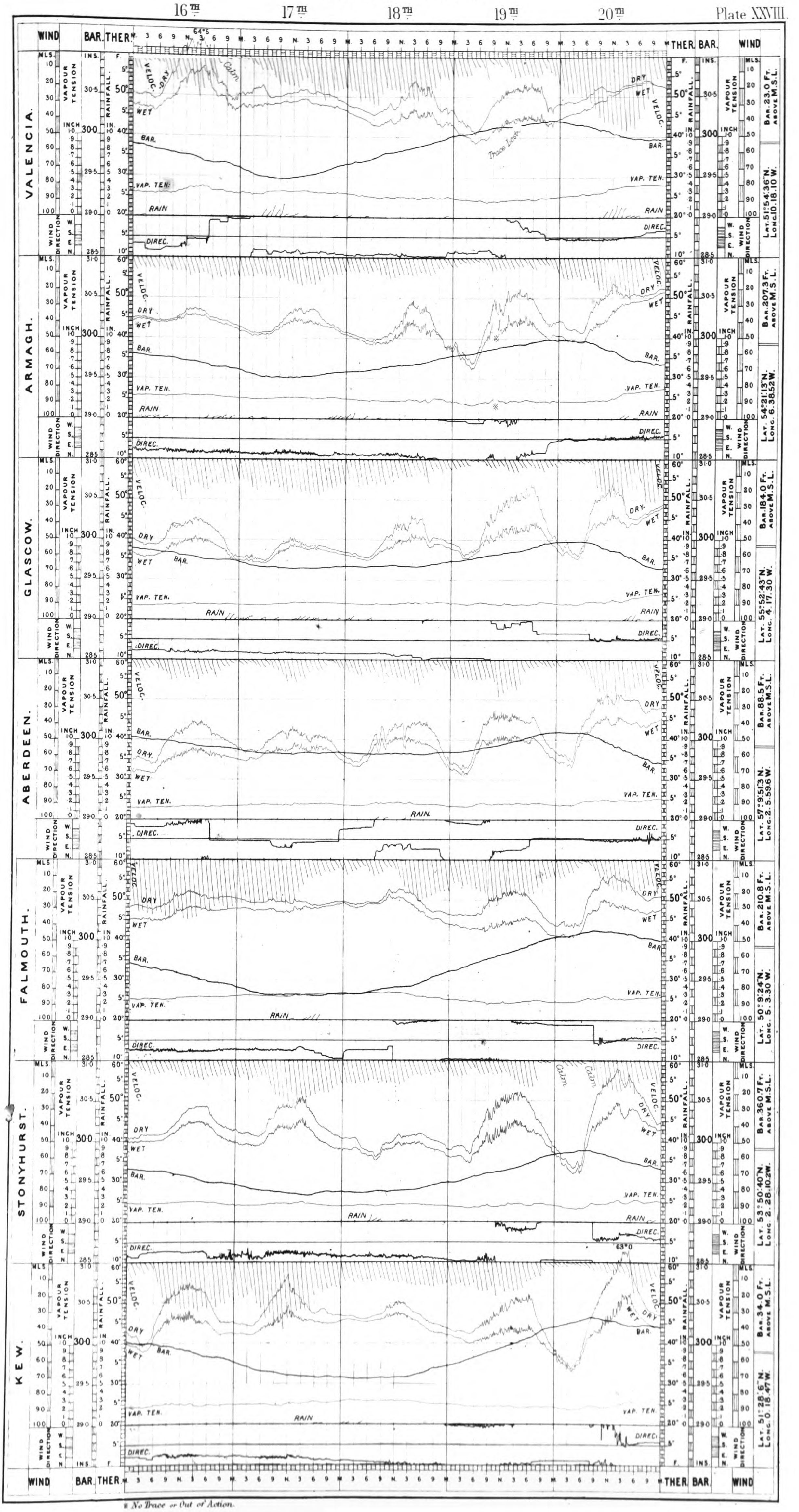
Plate XXVII.



* No Trace or Out of Action

MAY, — 1873.

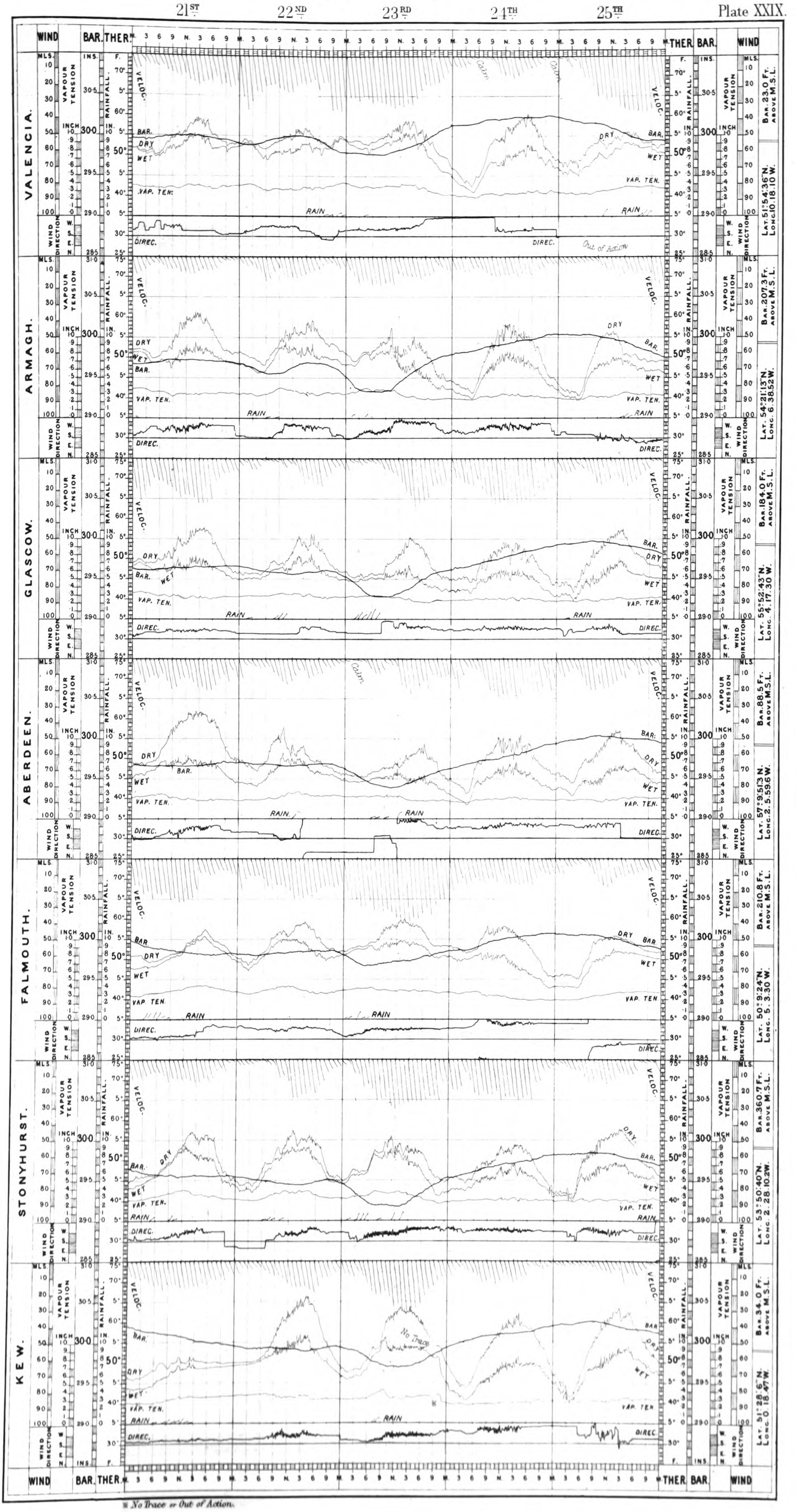
Plate XXVIII.



* *No Trace or Out of Action.*

MAY, _1873.

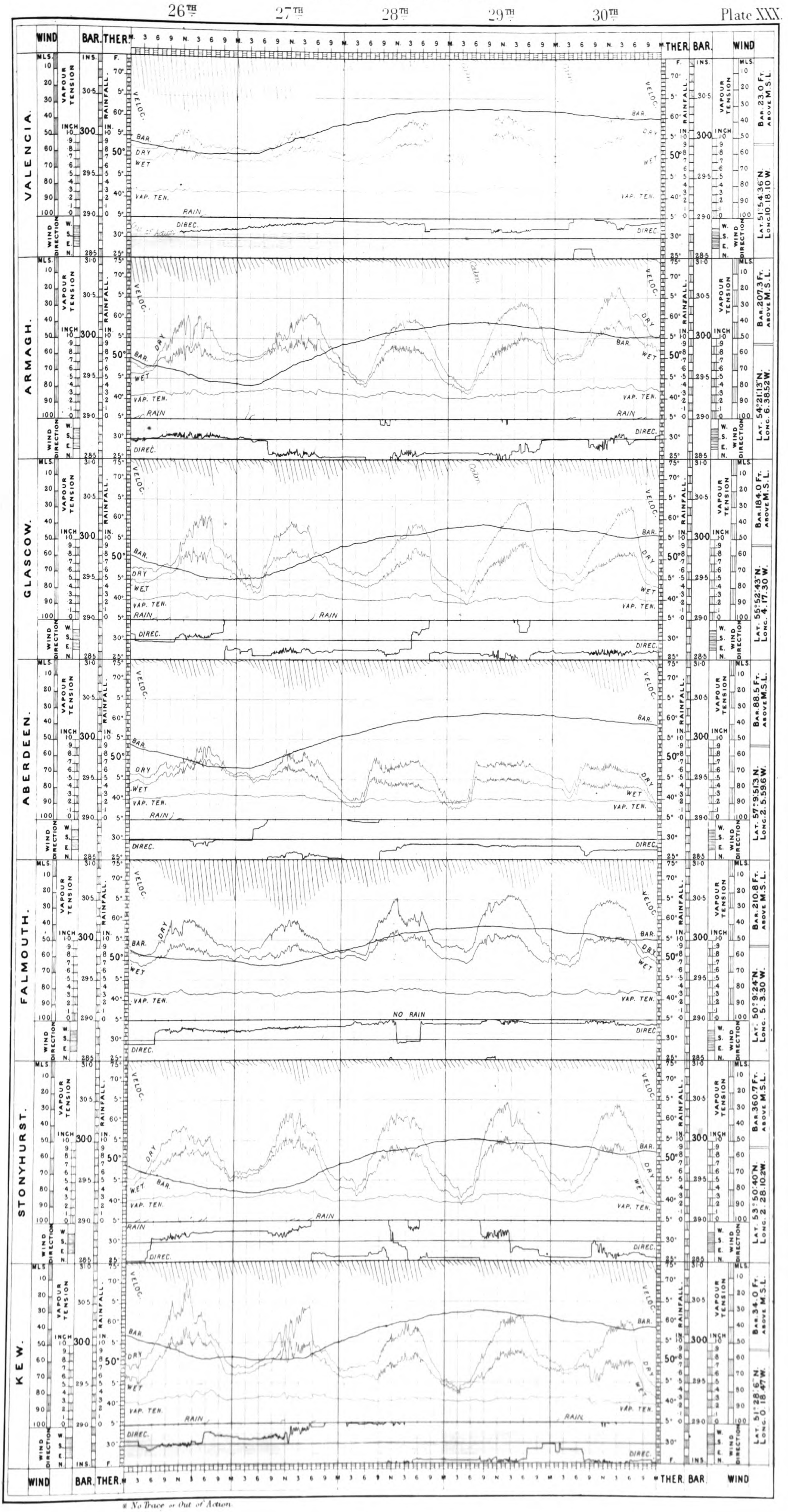
Plate XXIX.



* No Trace or Out of Action.

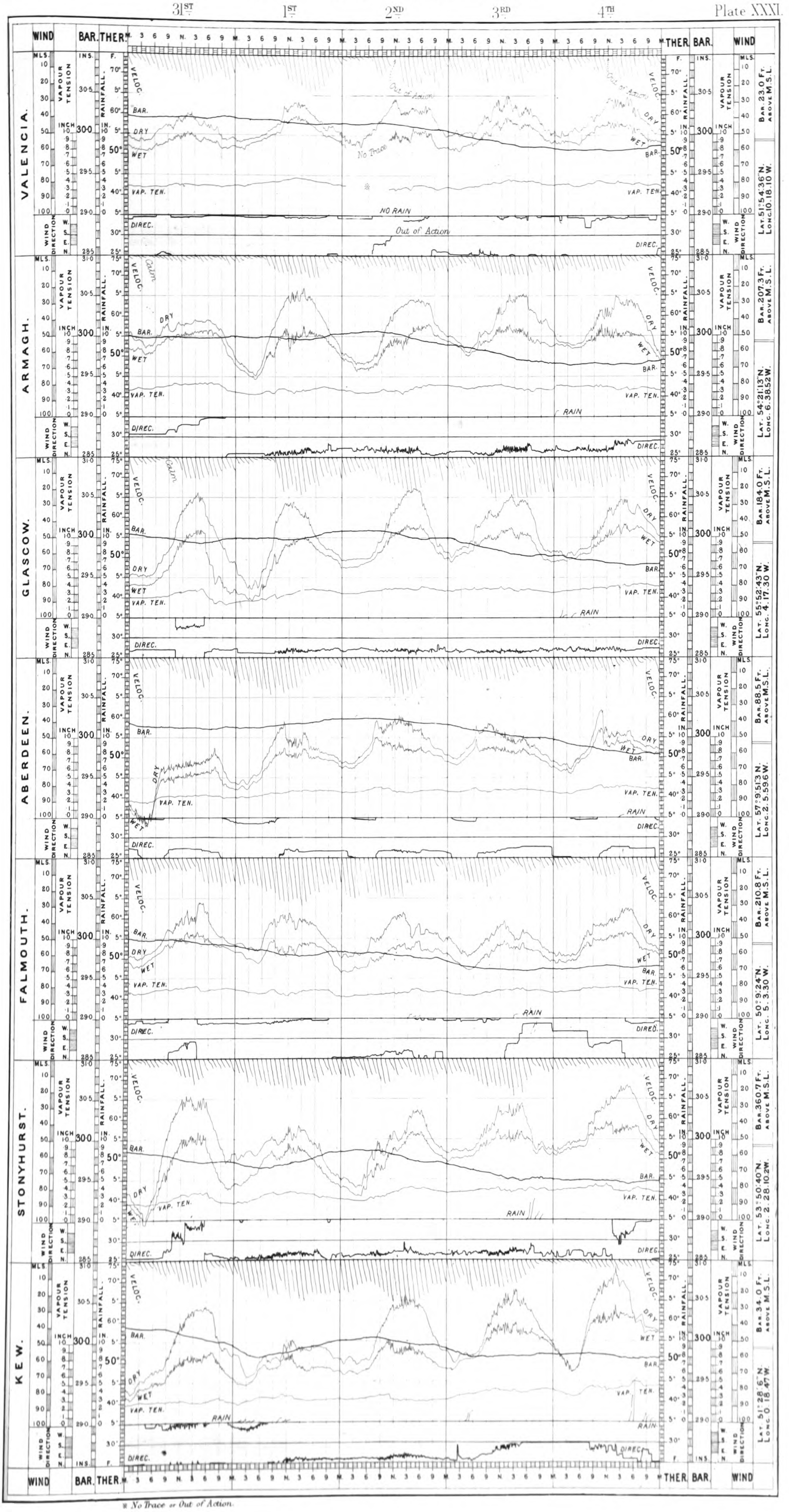
MAY, 1873.

Plate XXX.



* No Trace or Out of Action.

MAY & JUNE...1873



* No Trace or Out of Action.

JUNE, 1873.

5TH 6TH 7TH 8TH 9TH

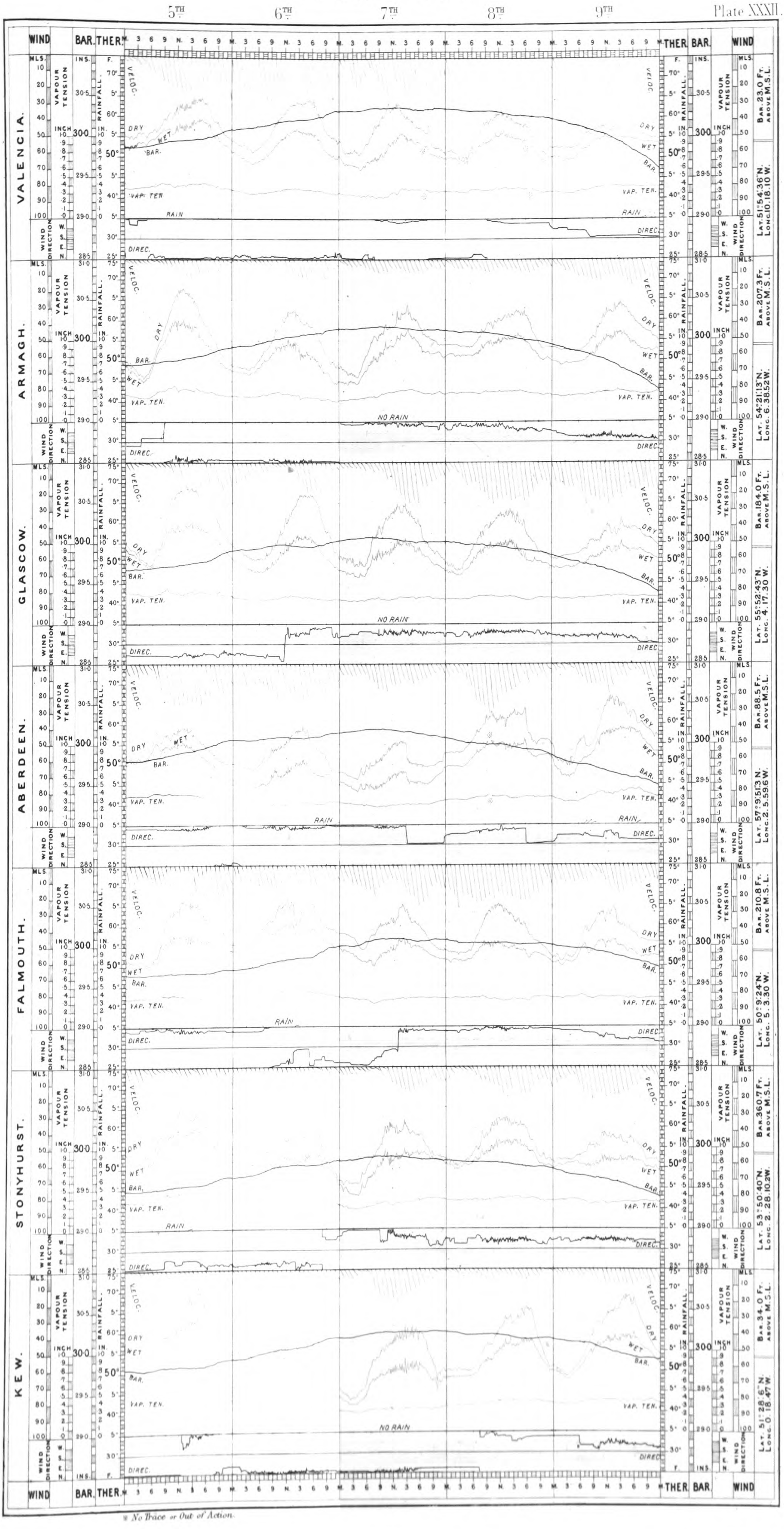
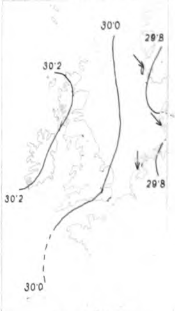
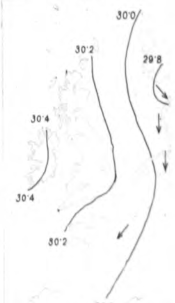


FIG. 33.


30·0
29·8
30·2
30·2
29·8
30·0

June 6th 8 a.m.

FIG. 34.


30·0
30·2
29·8
30·4
30·4
30·2
30·0

June 7th 8 a.m.

* *No Trace or Out of Action.*

JUNE, — 1873.

Plate XXXIII.

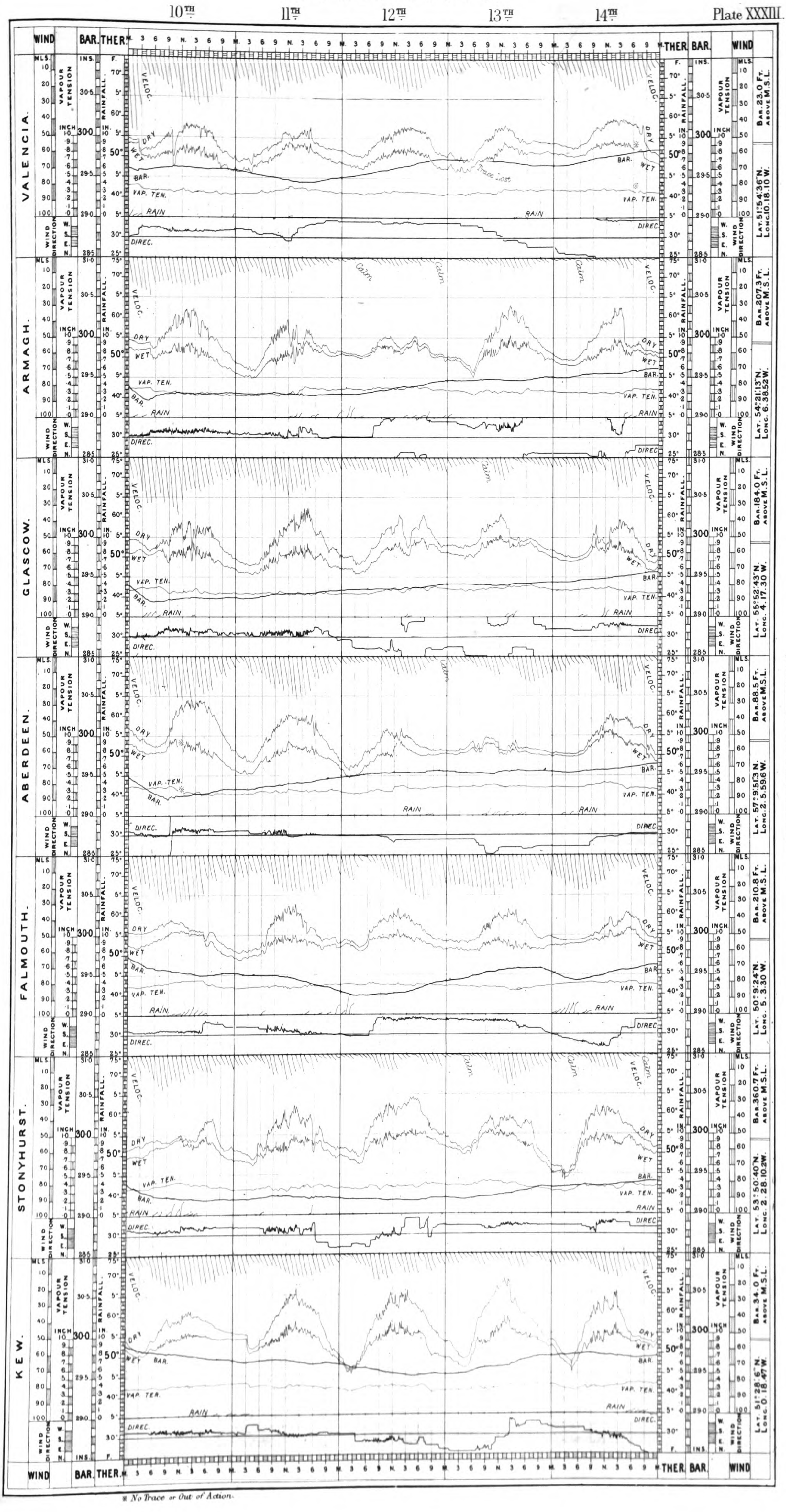
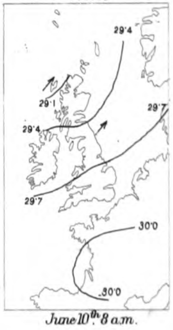


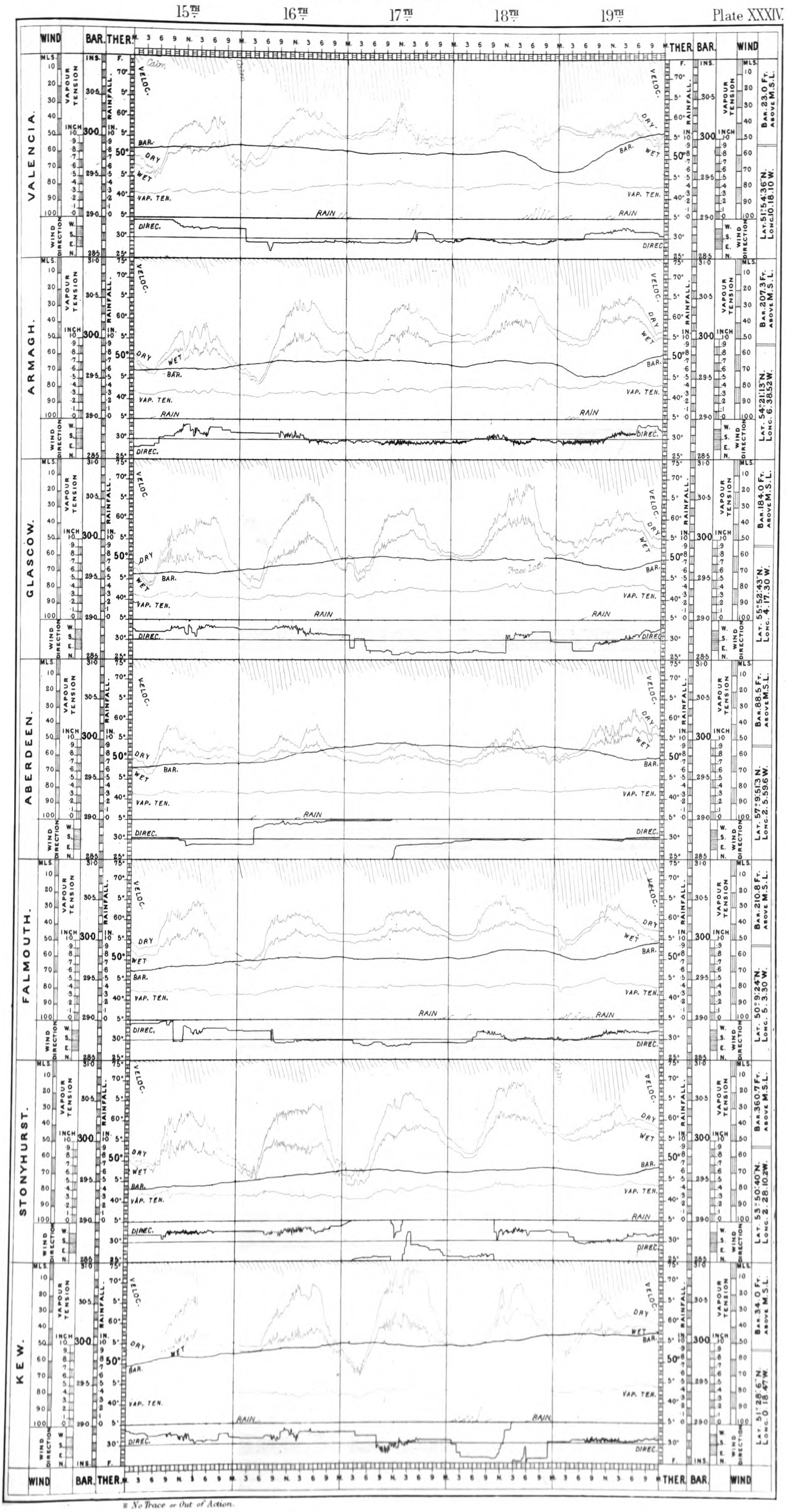
FIG. 35


29·4
29·1
29·4
29·7
29·7
30·0
30·0

June 10th 8 a.m.

* No Trace or Out of Action.

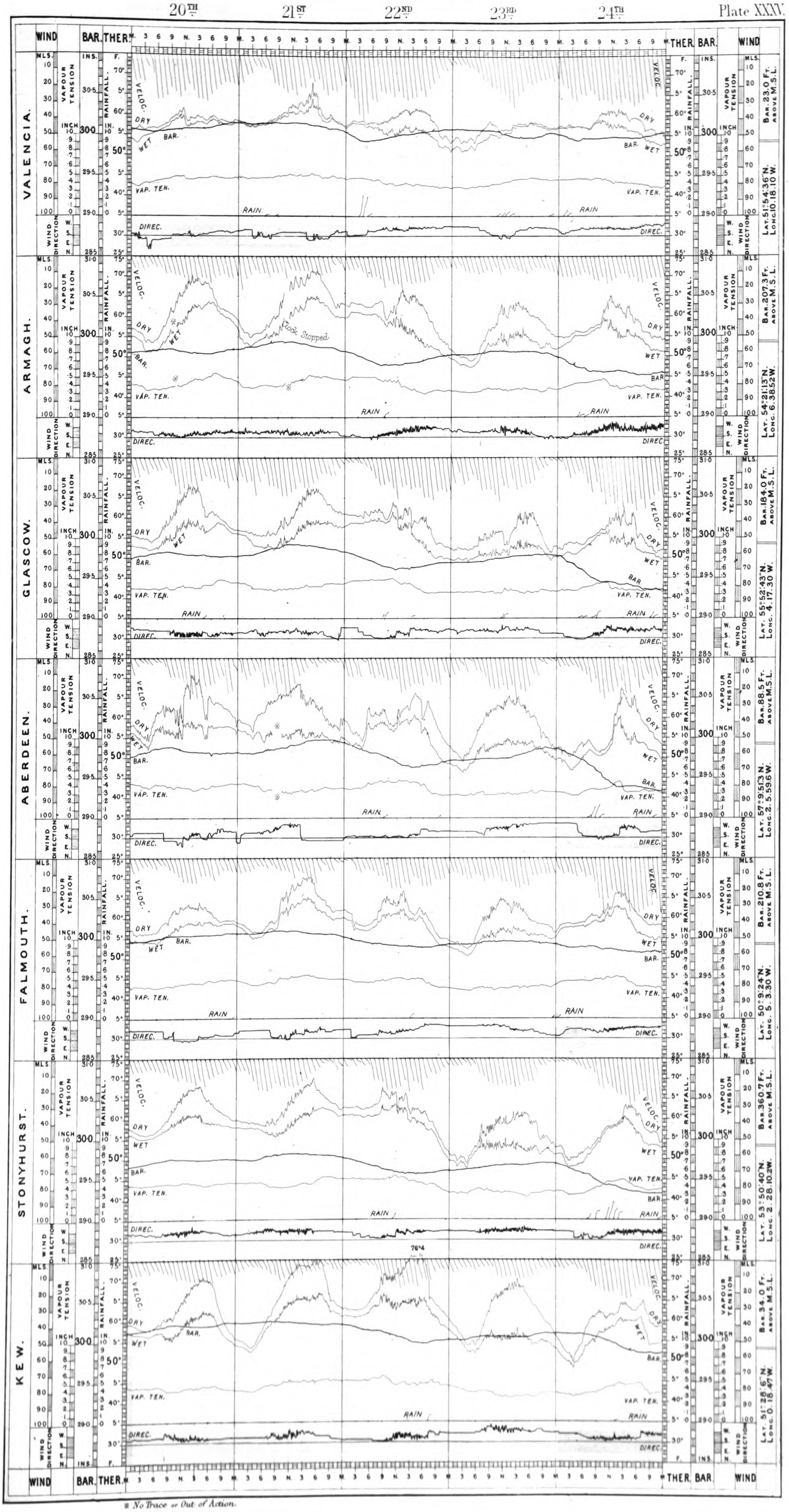
JUNE 1873



* No Trace or Out of Action.

JUNE, _1873

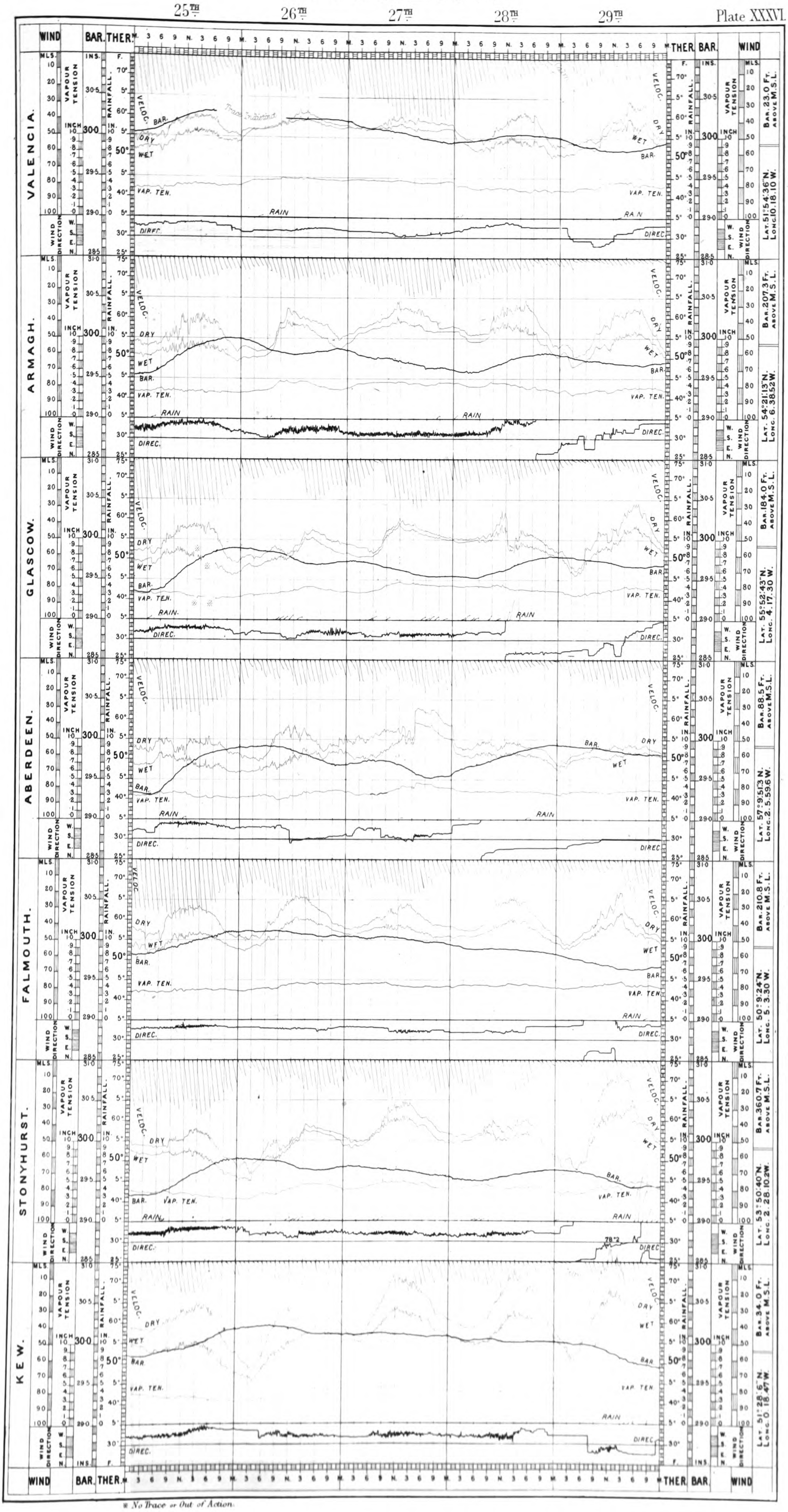
Plate XXXV.



* No Trace or Out of Action.

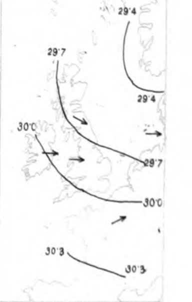
JUNE, 1873

Plate XXXVI.



* No Trace or Out of Action.

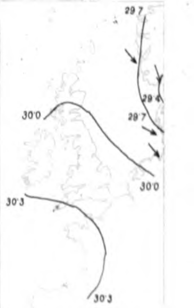
FIG. 36



29·4
29·7
29·4
30·0
29·7
30·0
30·3
30·3

June 25th 8 a.m.

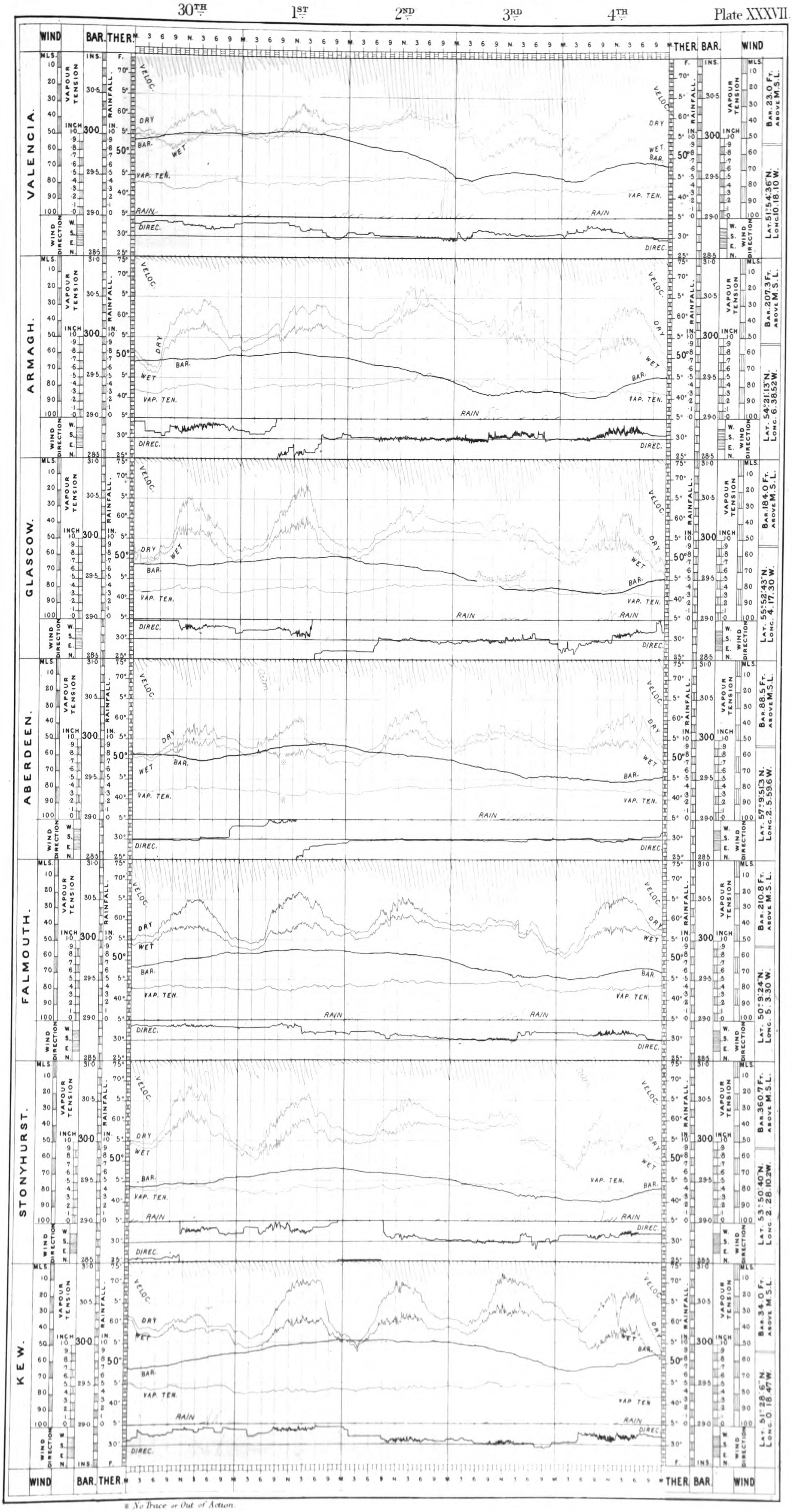
FIG. 37



29·7
29·4
29·7
30·0
30·0
30·3
30·3

June 26th 8 a.m.

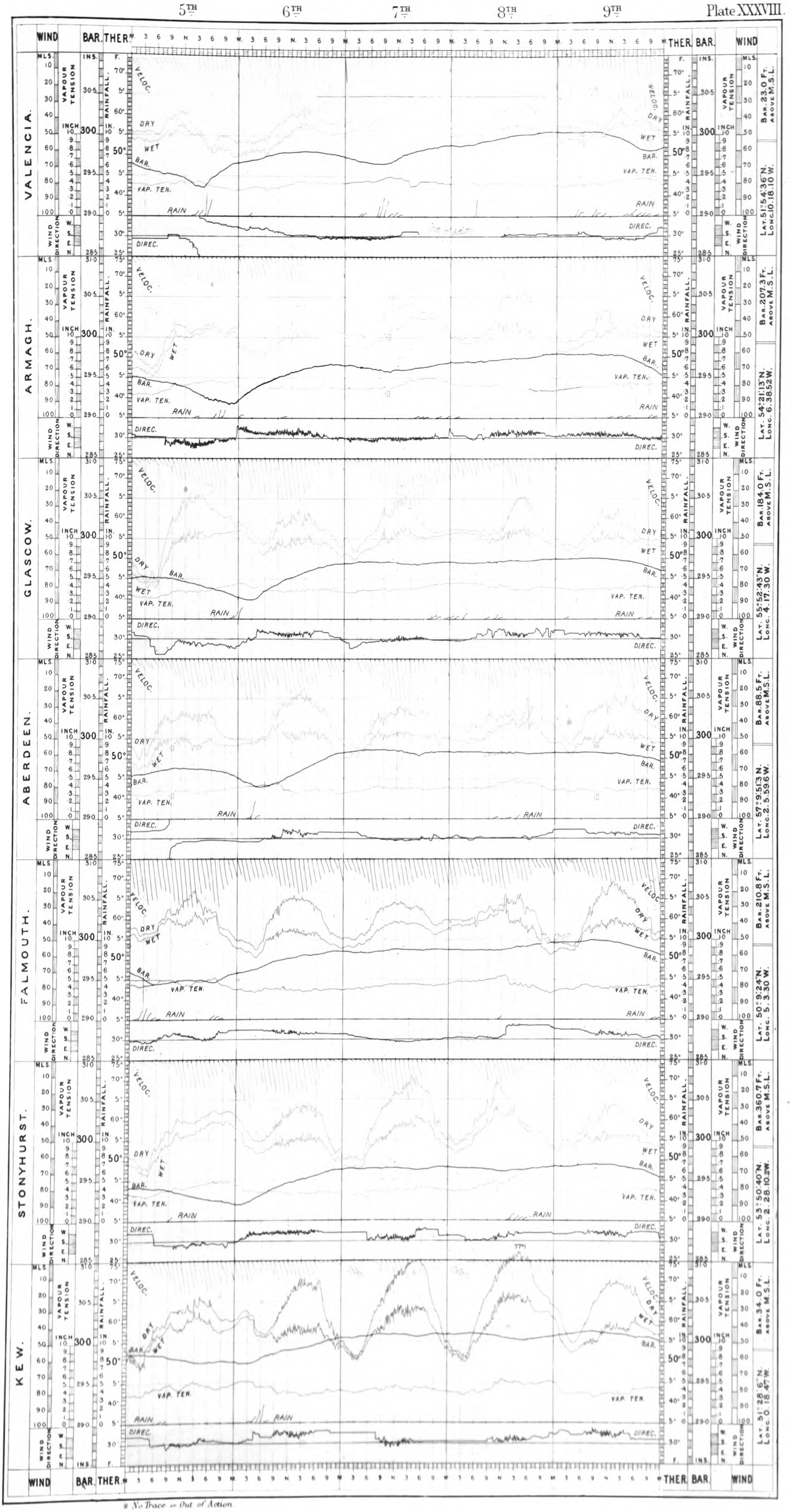
JUNE & JULY, — 1873.



※ No Trace or Out of Action.

JULY, — 1873.

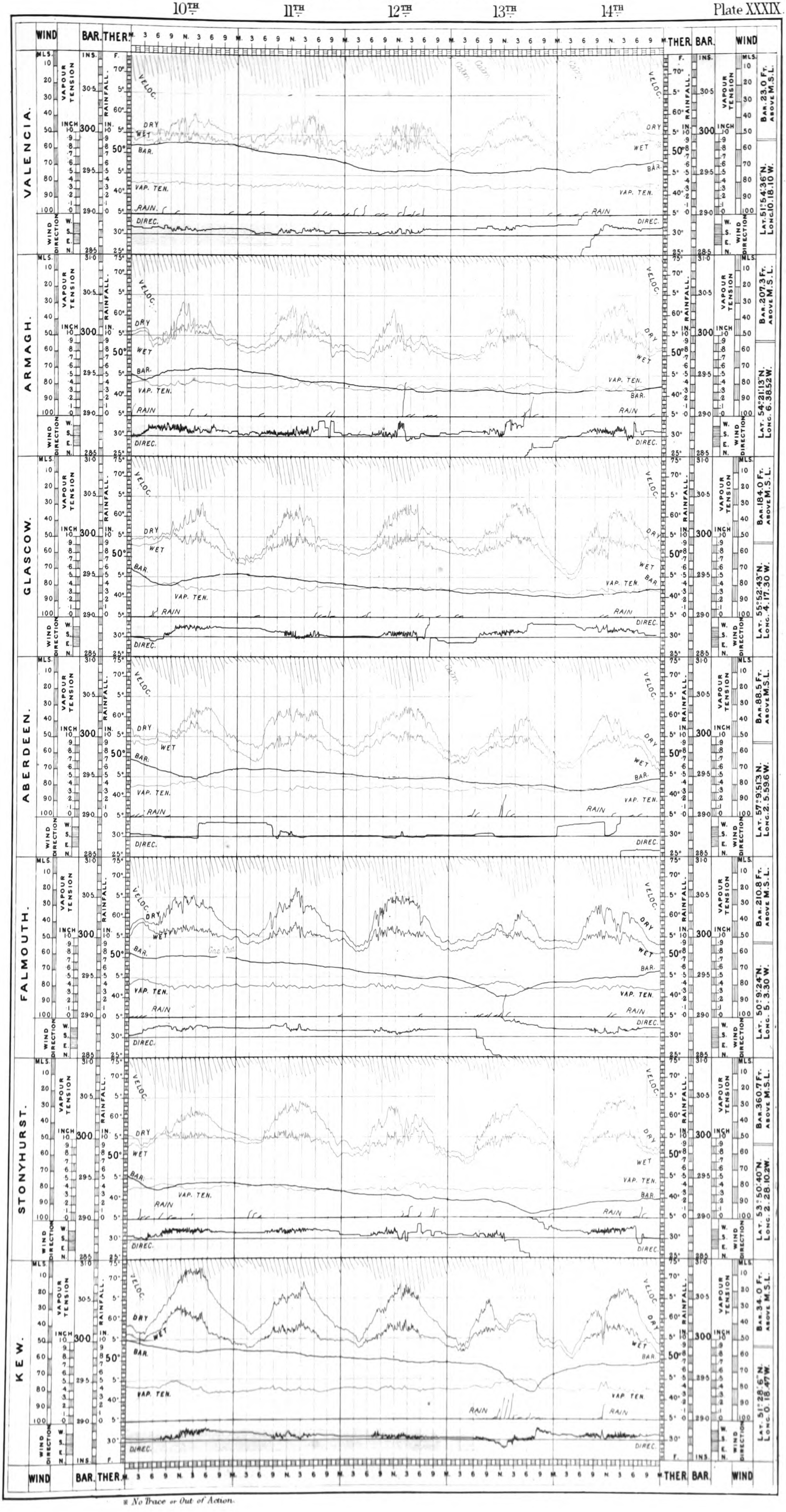
Plate XXXVIII.



* No Trace or Out of Action.

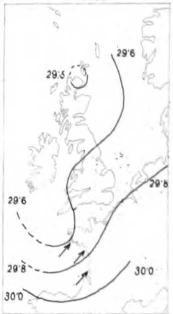
JULY, — 1873.

Plate XXXIX.



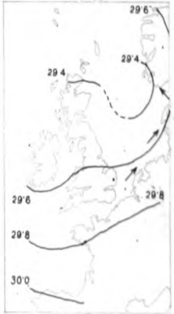
* No Trace or Out of Action.

FIG. 38


29·6
29·8
30·0
29·6
29·8
30·0

July 13th 8 a.m.

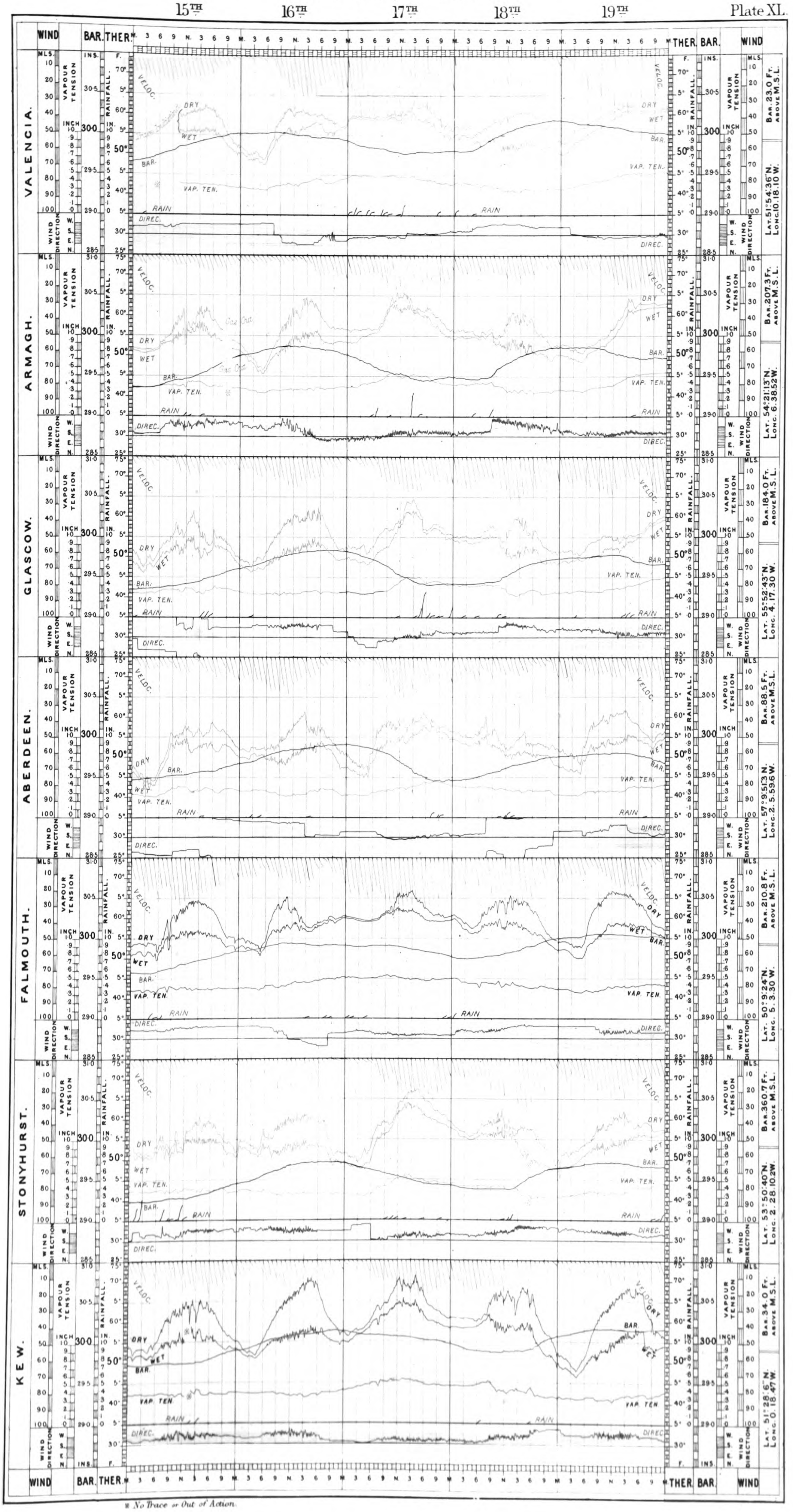
FIG. 39


29·6
29·4
29·4
29·6
29·8
29·8
30·0

July 14th 8 a.m.

JULY, — 1873.

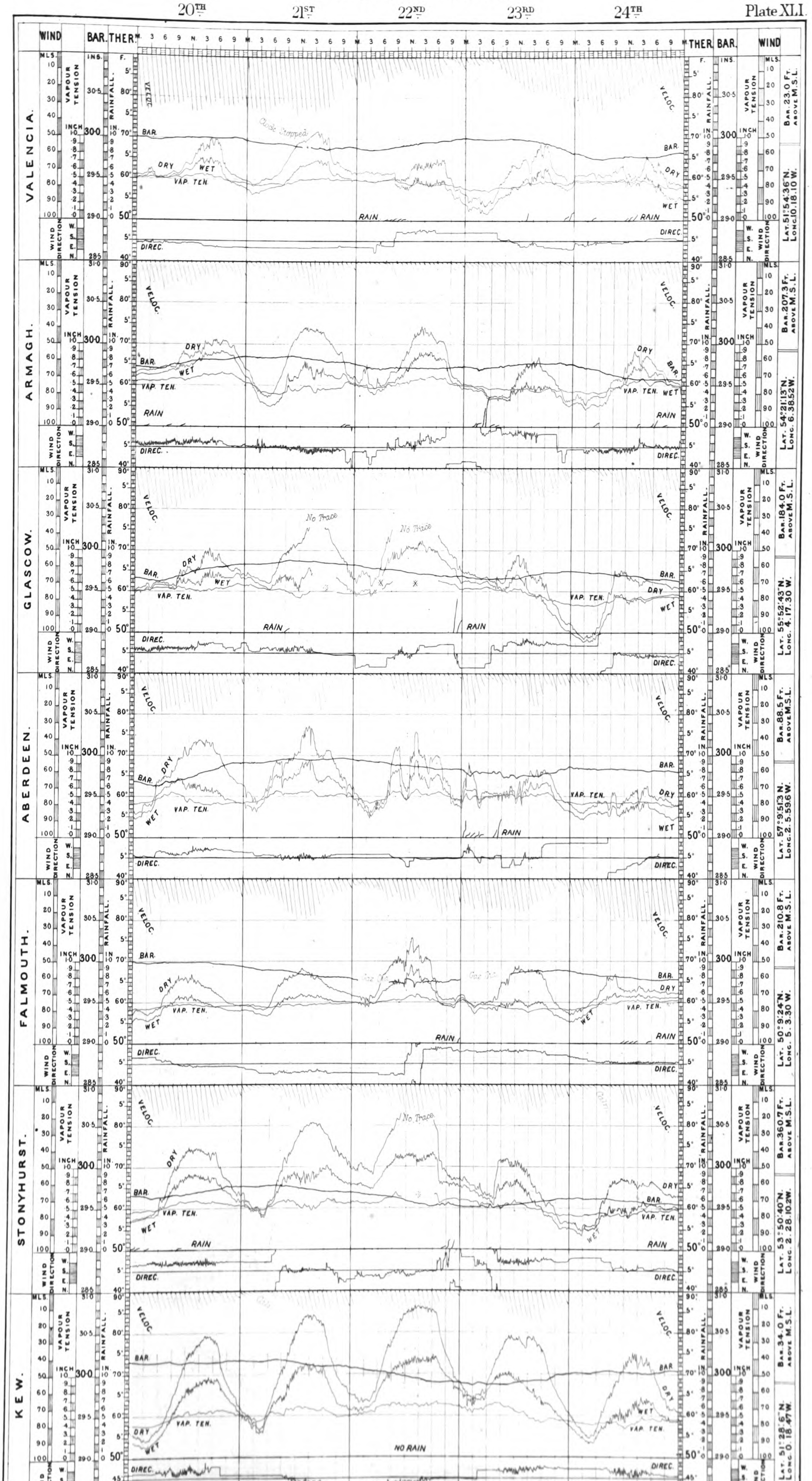
Plate XL.



* No Trace or Out of Action.

JULY, — 1873.

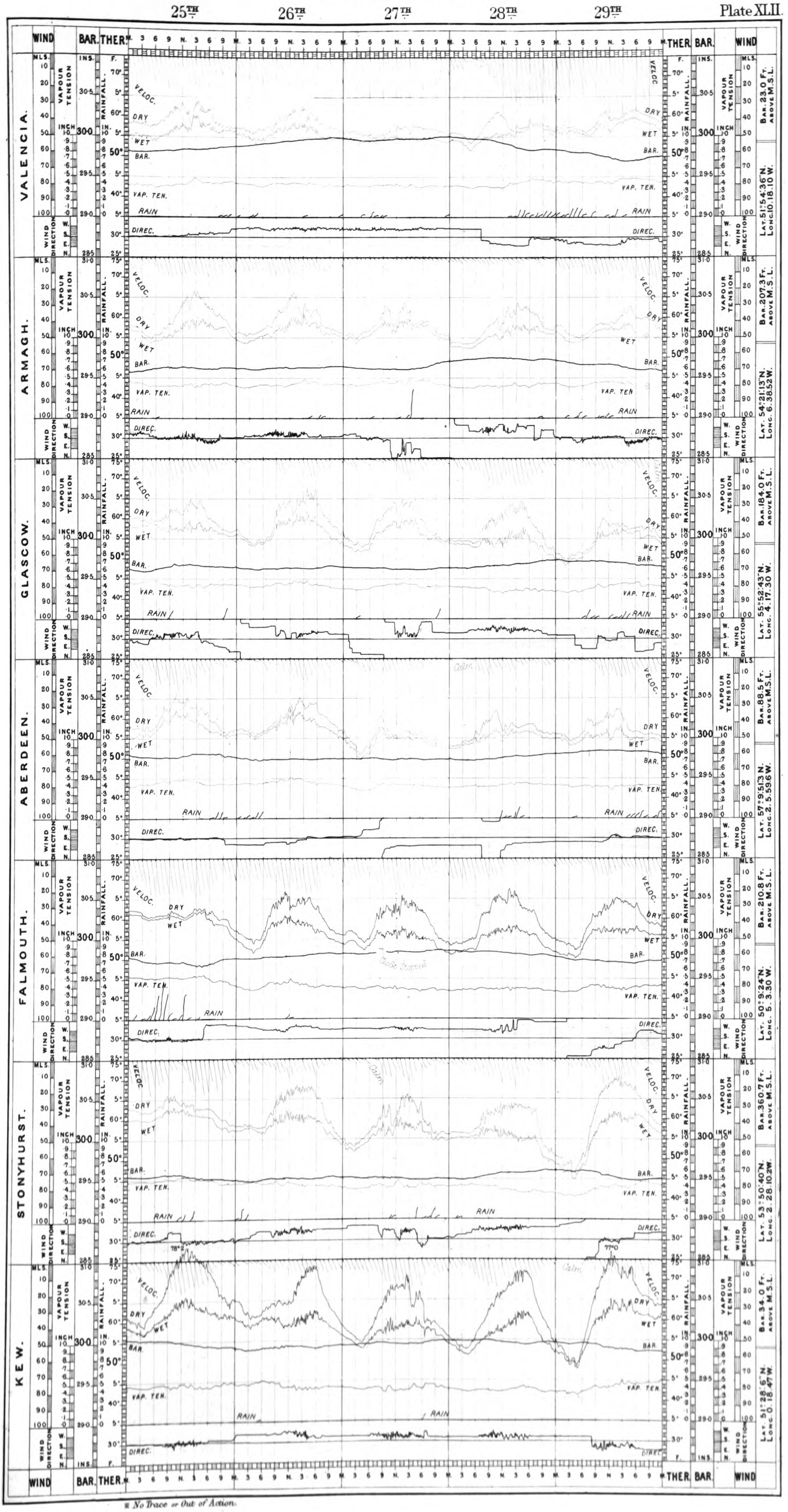
Plate XLI.



* No Trace or Out of Action.

JULY, — 1873.

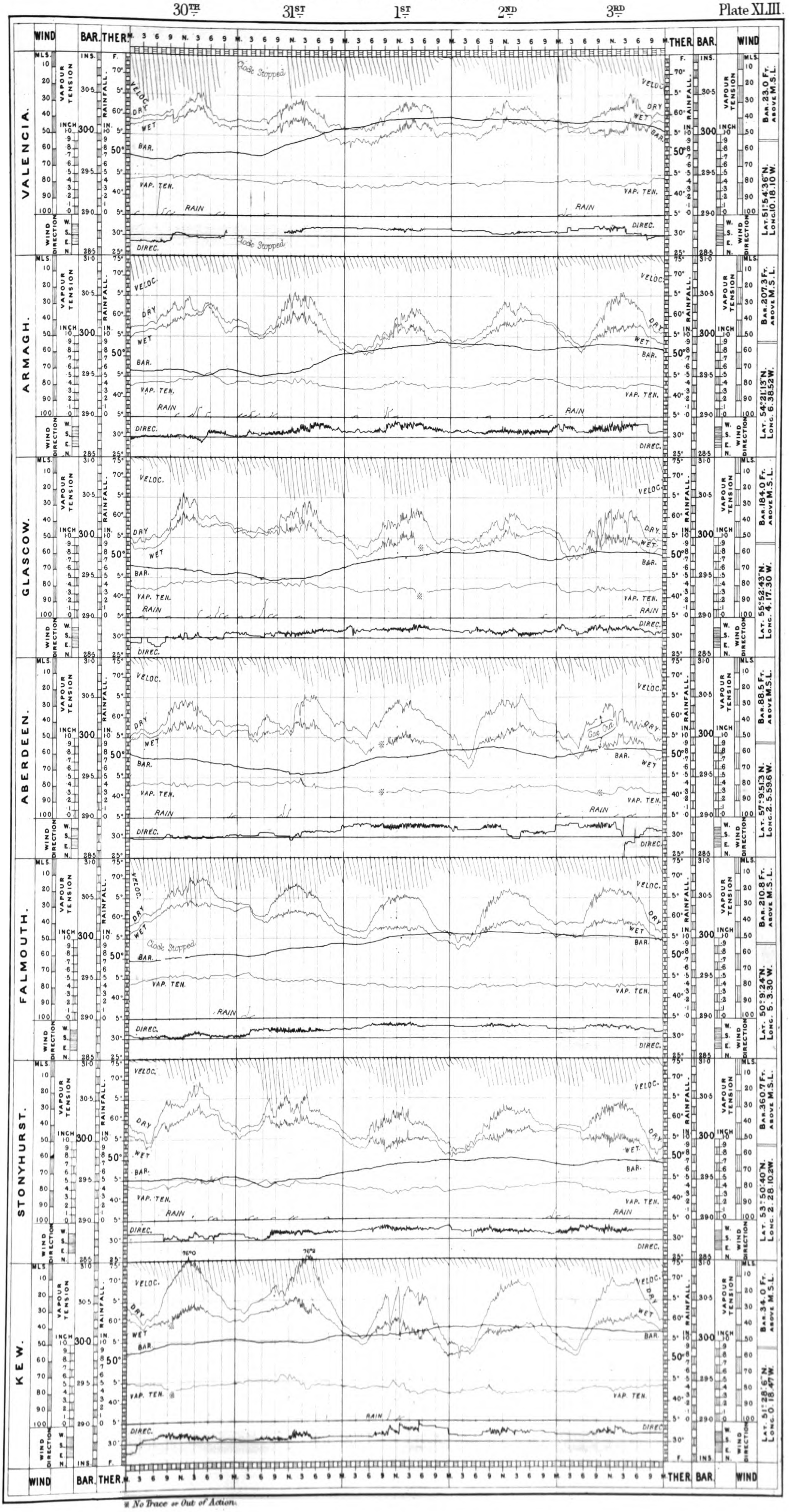
Plate XLII.



* No Trace or Out of Action.

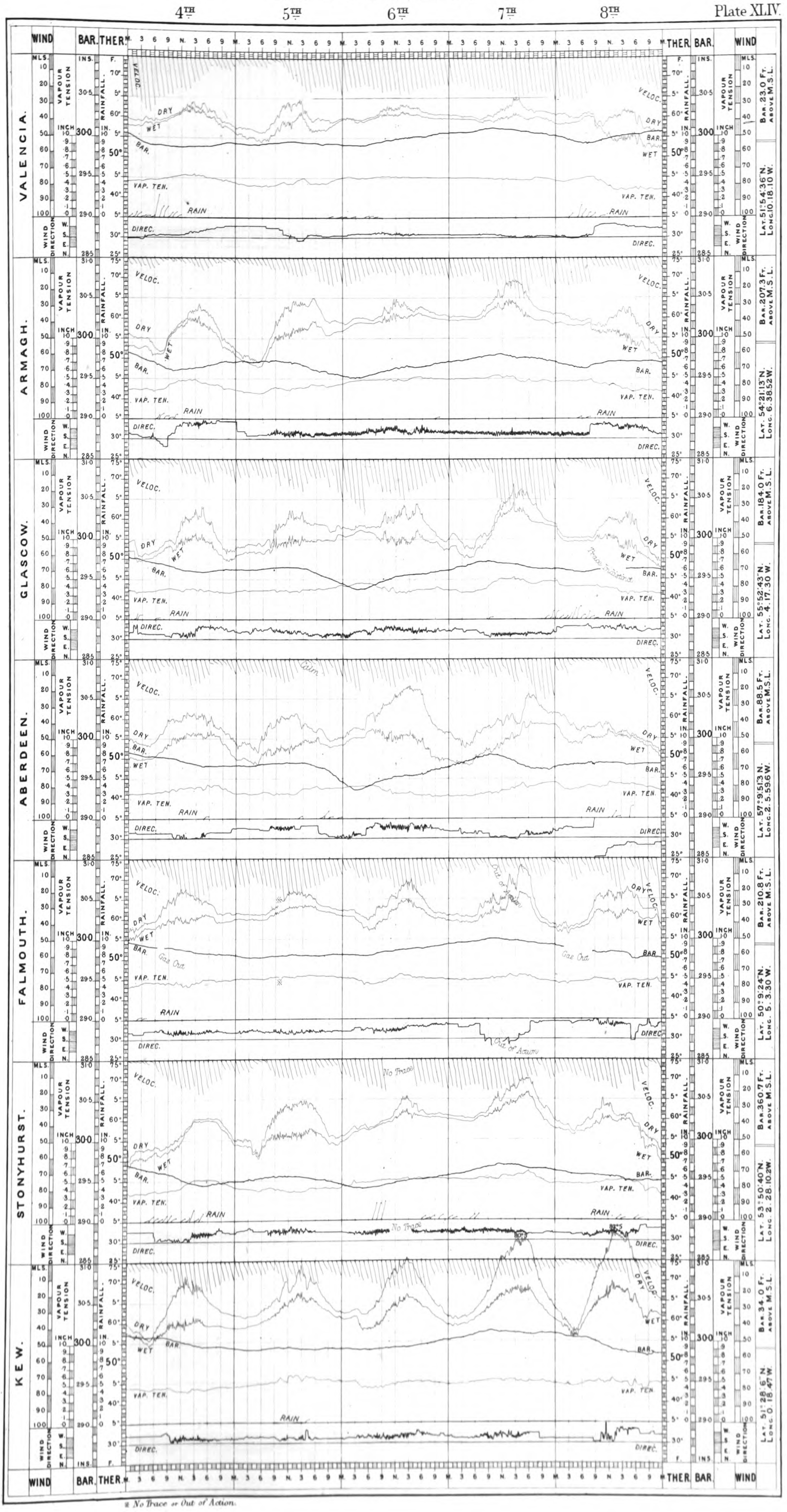
JULY & AUGUST, _ 1873.

Plate XLIII.



※ No Trace or Out of Action.

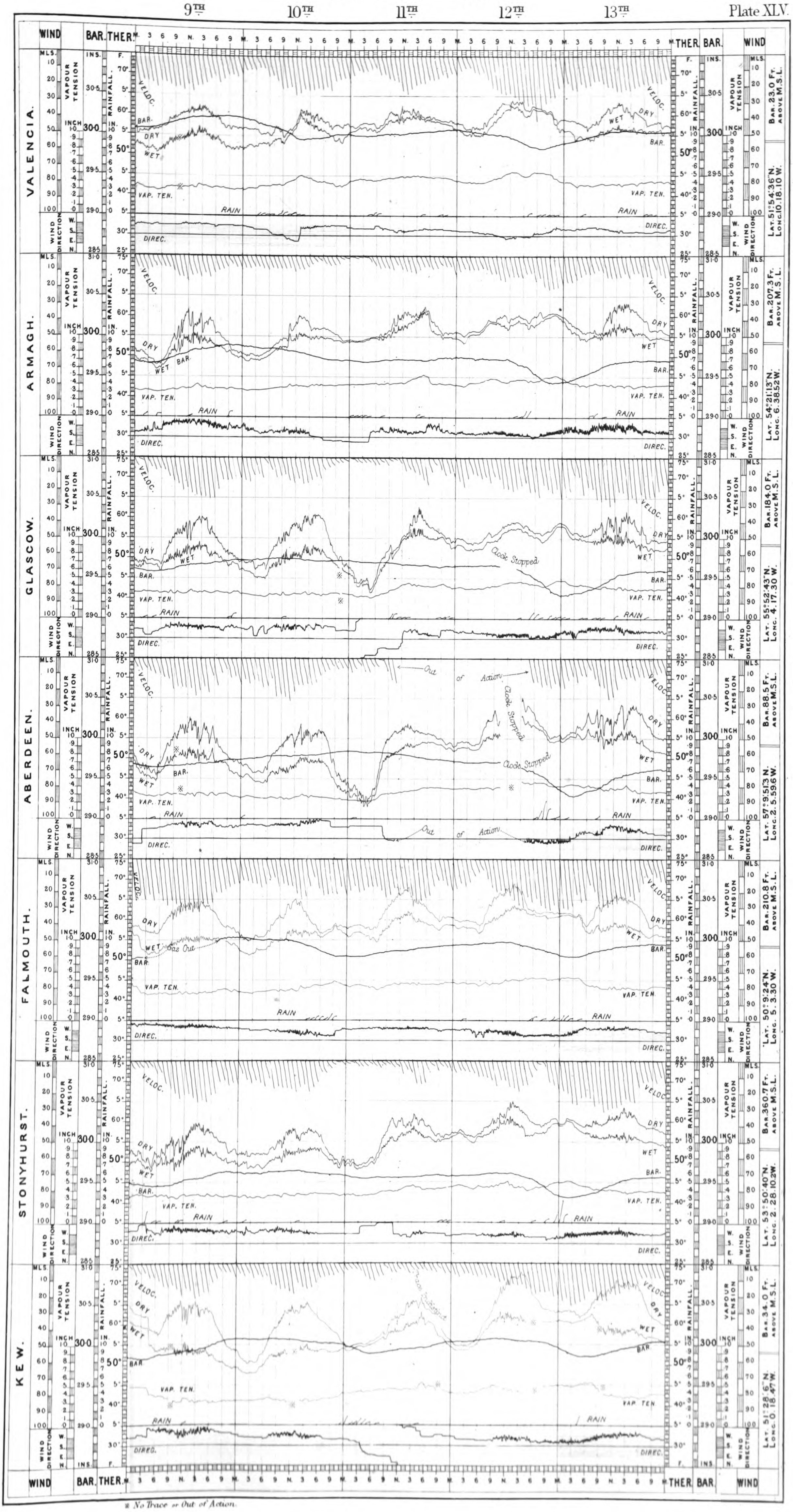
AUGUST, — 1873.



* No Trace or Out of Action.

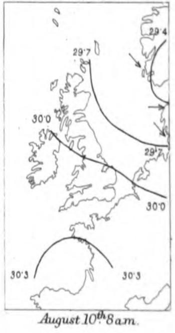
AUGUST, — 1873.

Plate XLV.



* No Trace or Out of Action.

FIG. 40

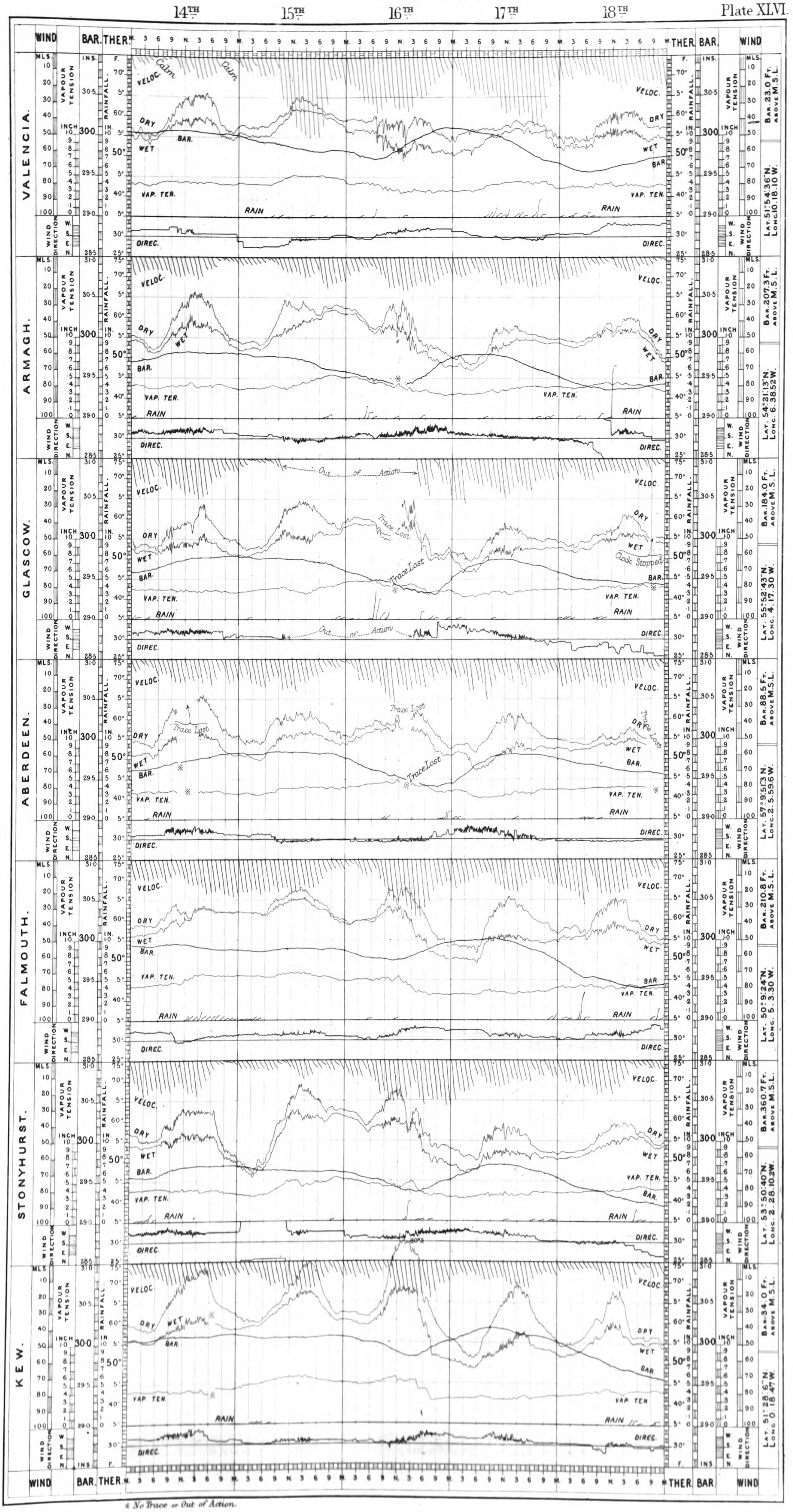


29·4
29·7
30·0
29·7
30·0
30·3
30·3

August 10th 8 a.m.

AUGUST, — 1873.

Plate XLVI.

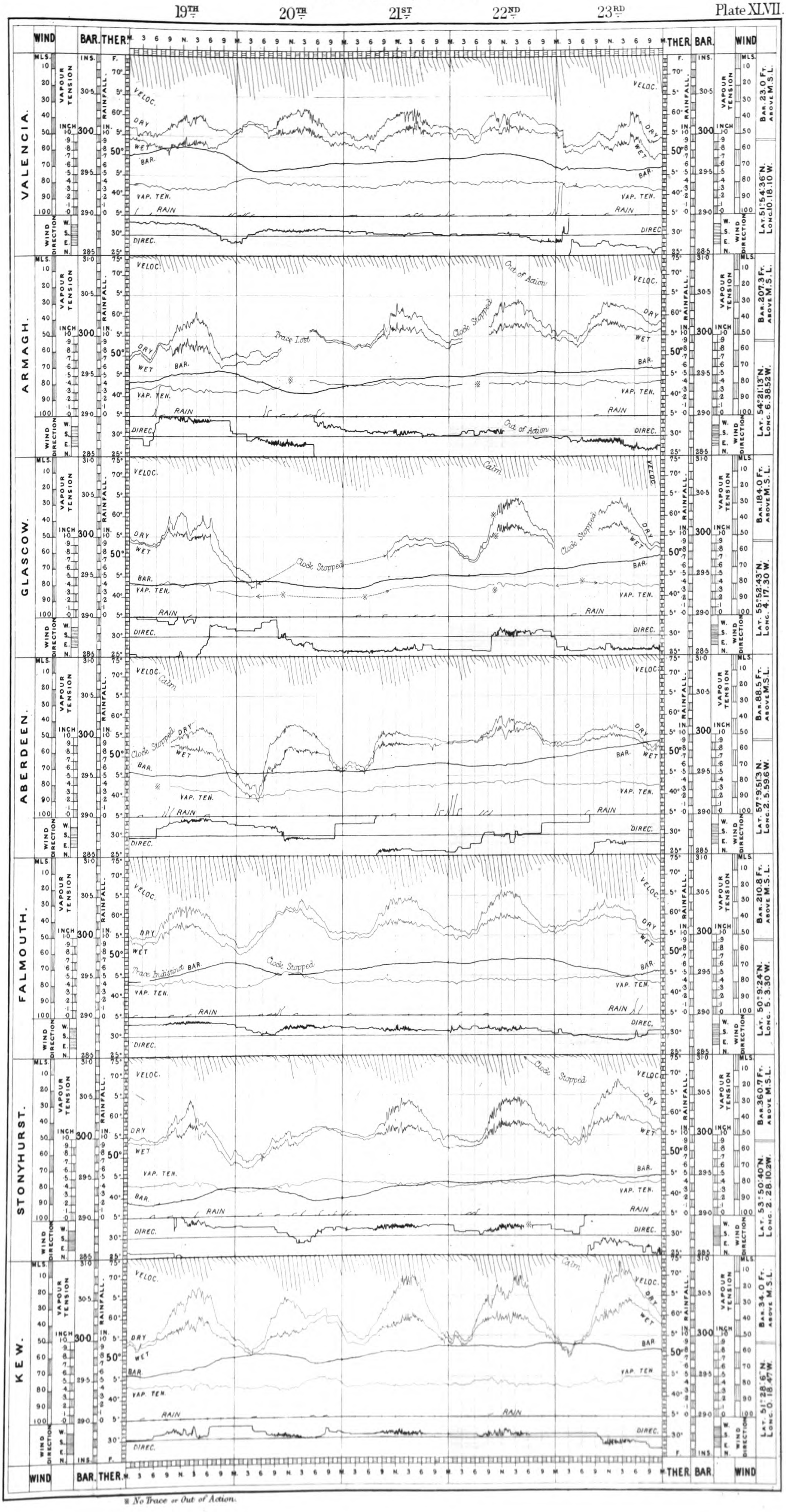


※ No Trace or Out of Action.

AUGUST, — 1873.

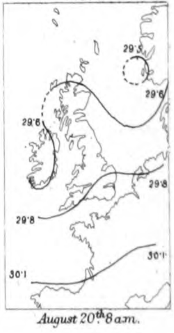
19th 20th 21st 22nd 23rd

Plate XLVII.



✻ No Trace or Out of Action.

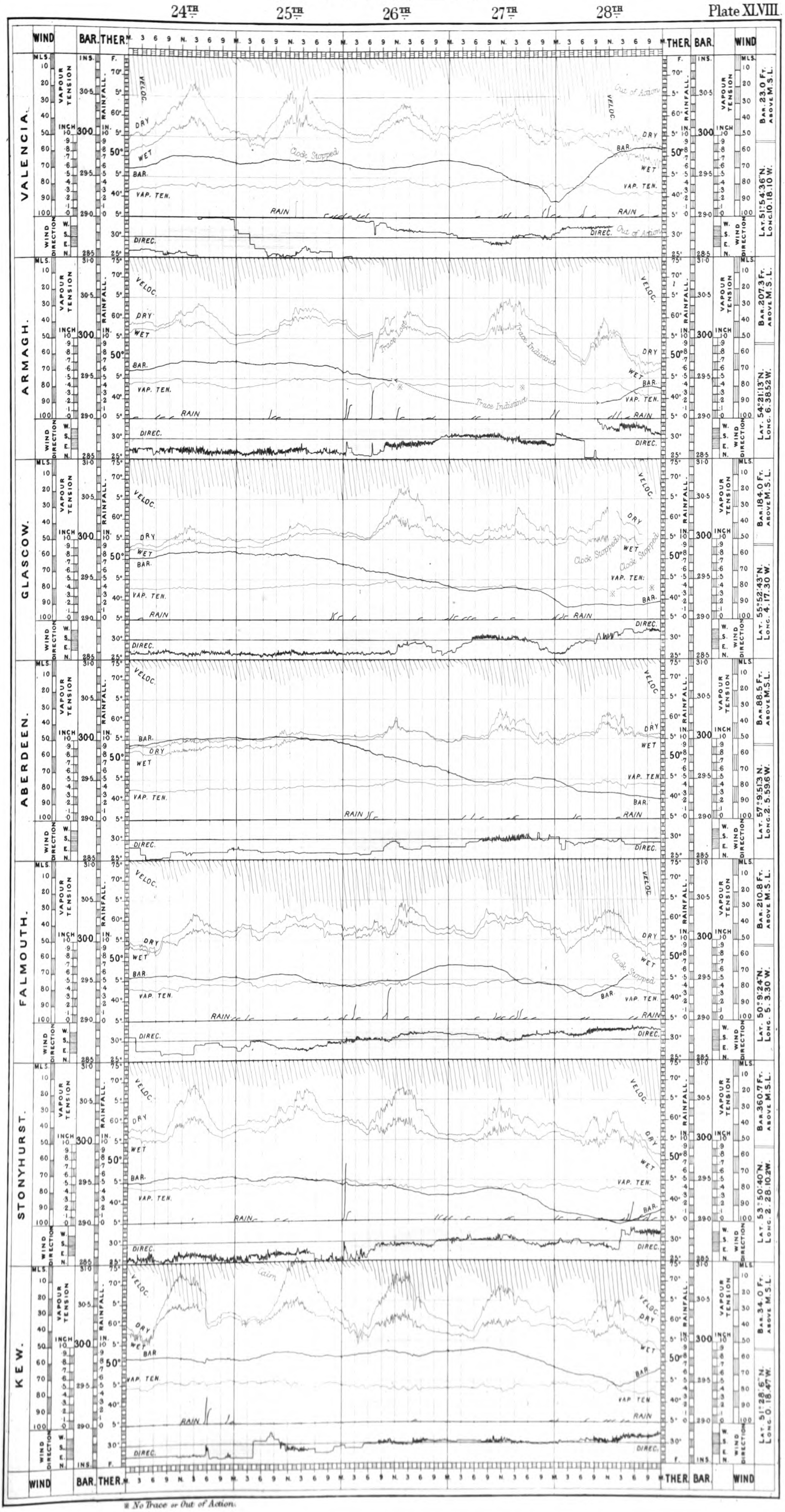
FIG. 41


29.5
29.6
29.8
29.8
29.8
30.1
30.1

August 20th 8 a.m.

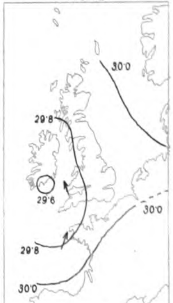
AUGUST, — 1873.

Plate XLVIII.



*No Trace or Out of Action.

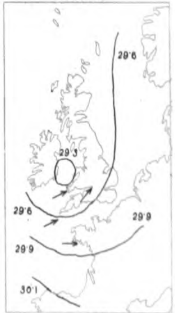
FIG. 42



30·0
29·8
29·6
29·8
30·0
30·0

August 26th 8 a.m.

FIG. 43



29·6
29·3
29·6
29·9
29·9
30·1

August 28th 8 a.m.

AUGUST & SEPTEMBER, __1873.

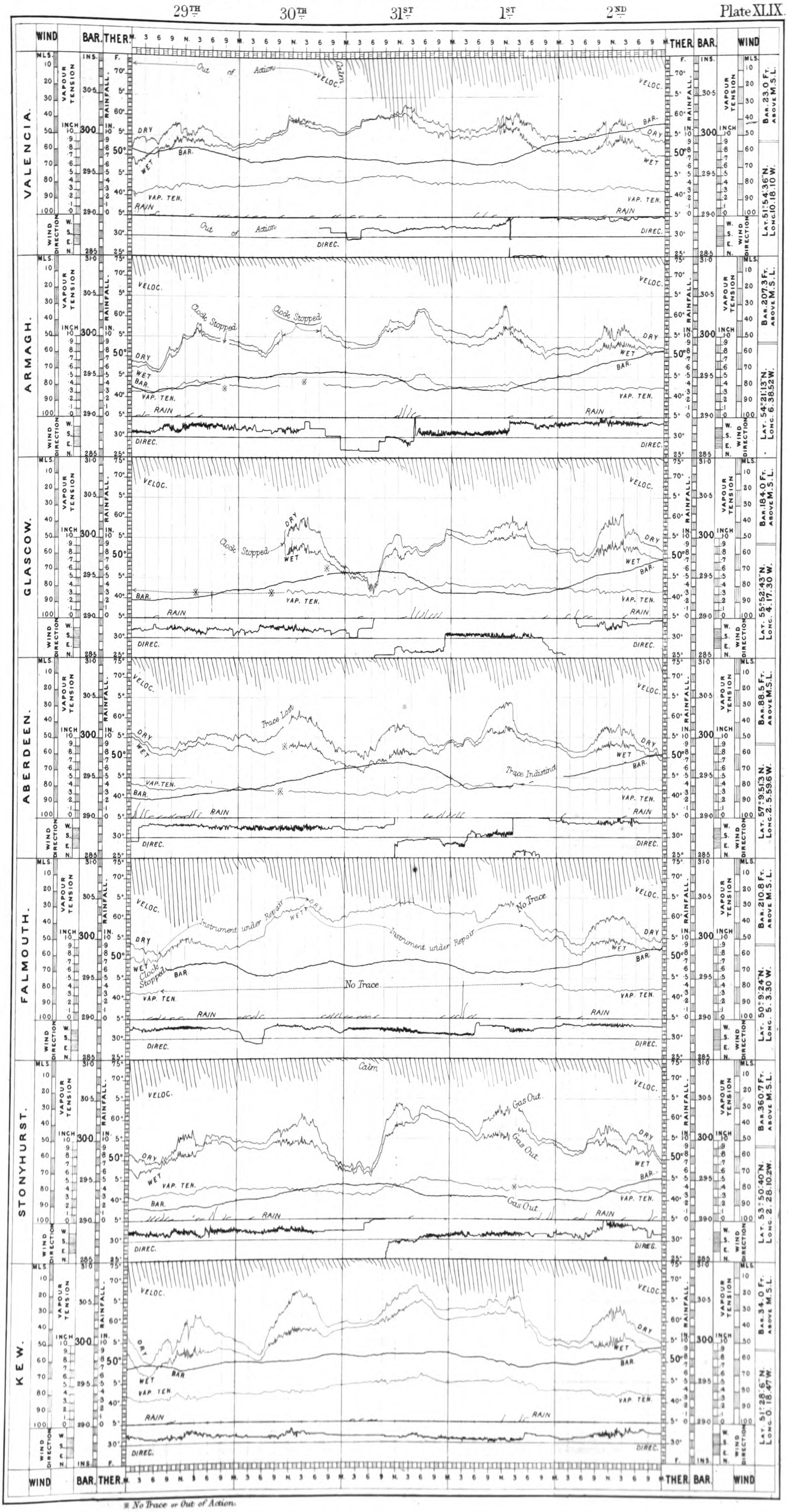
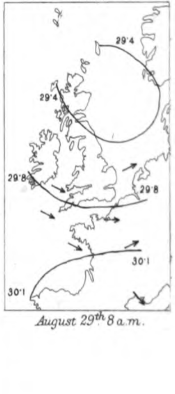


FIG. 44

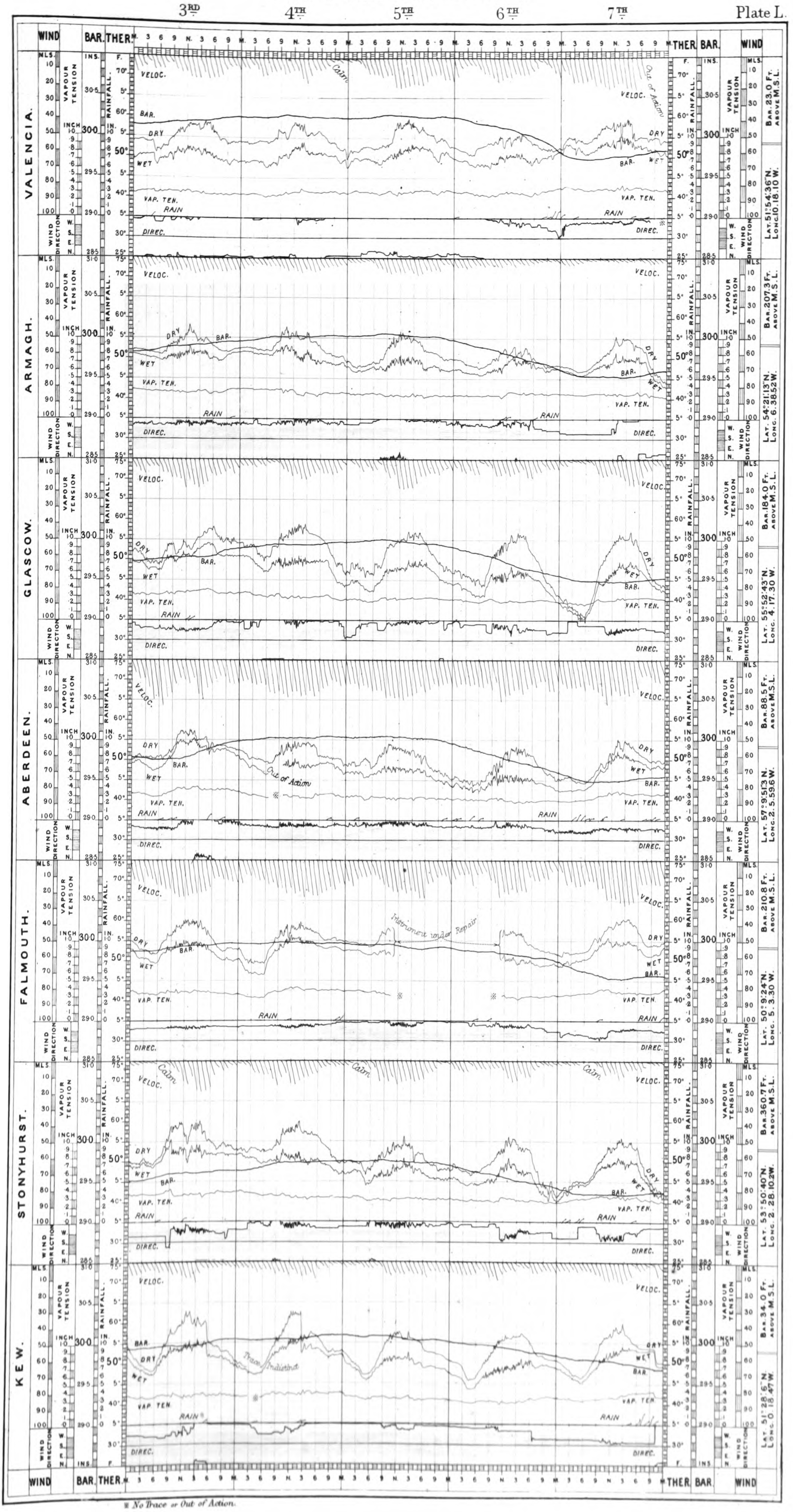

29·4
29·4
29·8
29·8
30·1
30·1

August 29th 8 a.m.

※ No Trace or Out of Action.

SEPTEMBER, — 1873.

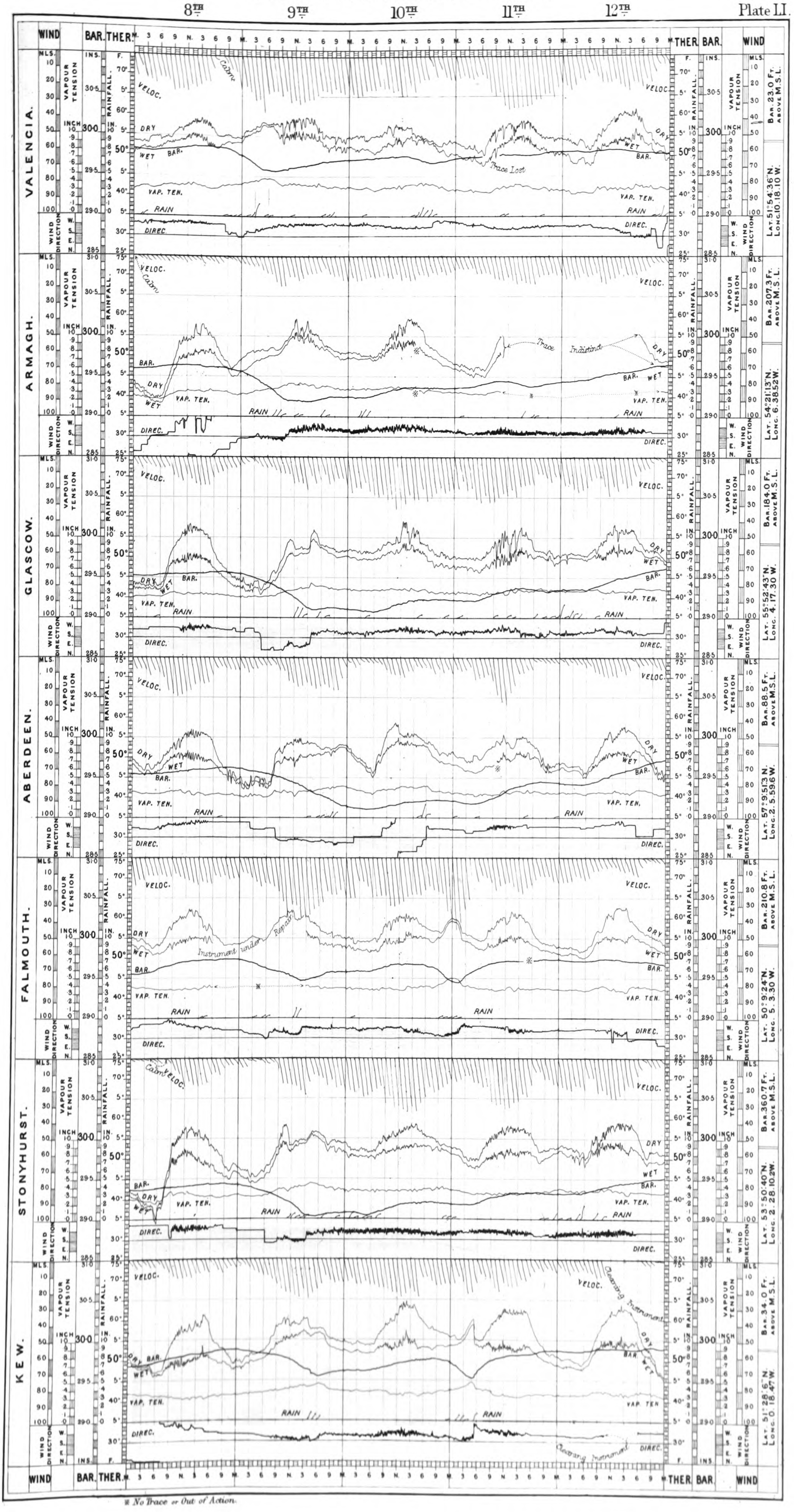
Plate L.



※ No Trace or Out of Action.

SEPTEMBER, — 1873.

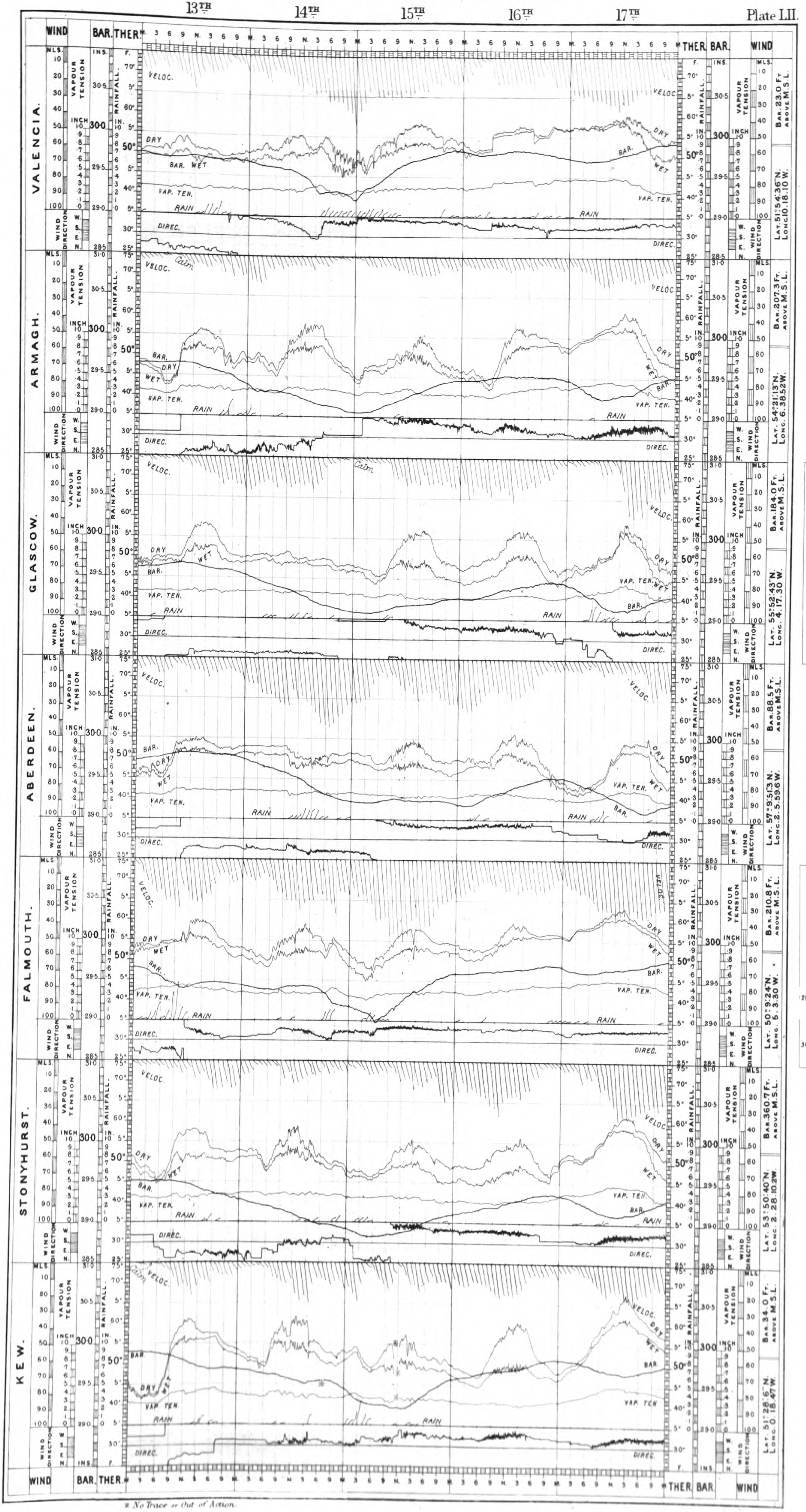
Plate LI.



※ No Trace or Out of Action.

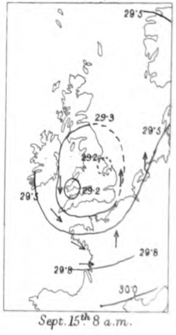
SEPTEMBER, — 1873.

Plate LII.



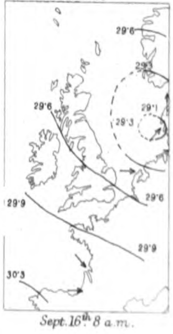
* No Trace or Out of Action.

FIG. 45


29·5
29·3
29·2
29·2
29·3
29·5
29·8
29·8
30·0

Sept. 15th 8 a.m.

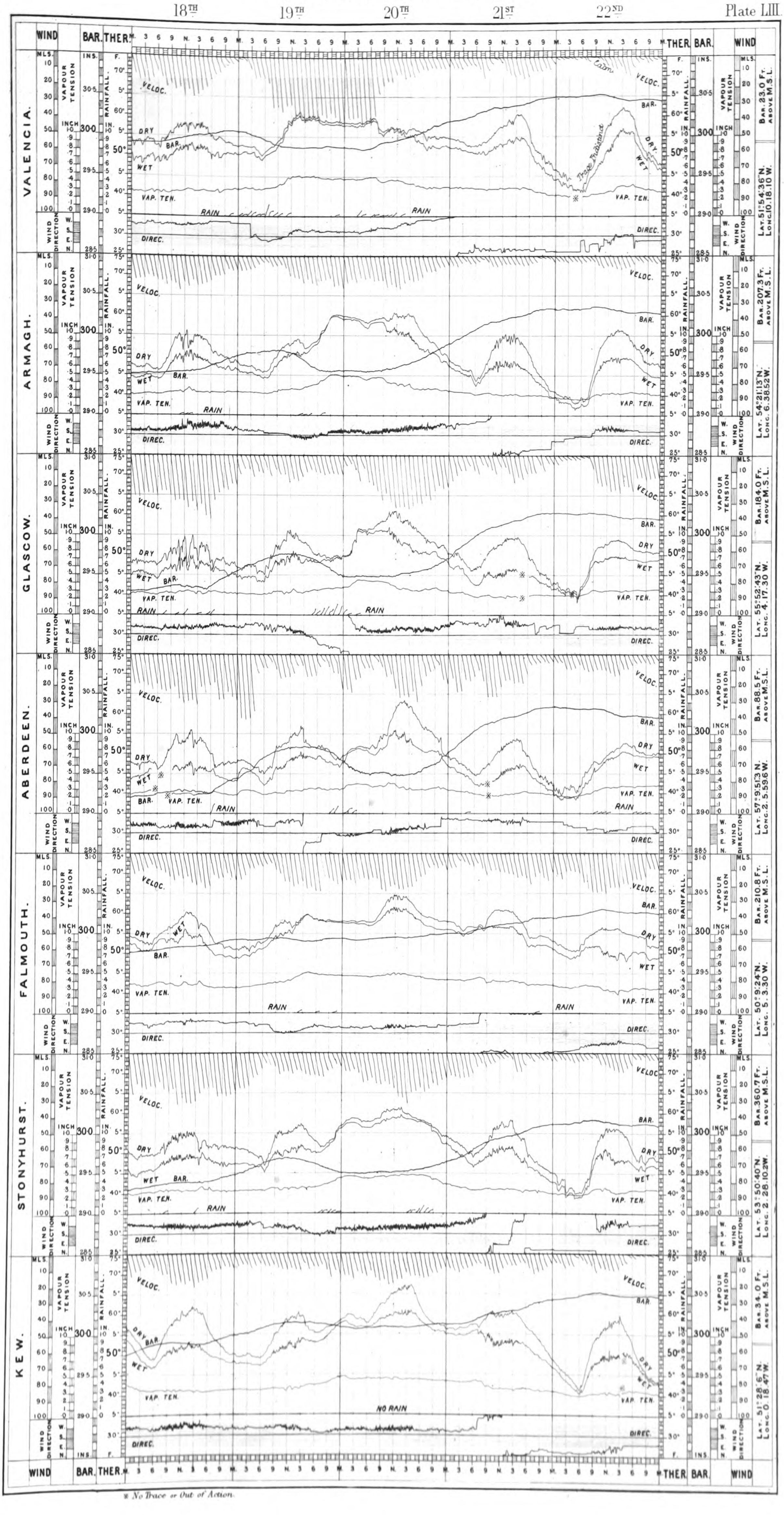
FIG. 46


29·6
29·6
29·3
29·1
29·3
29·6
29·9
29·9
30·3

Sept. 16th 8 a.m.

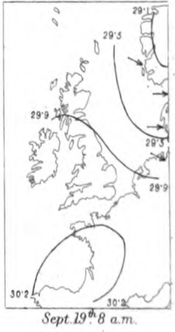
Plate LIII.

SEPTEMBER, — 1873.



* No Trace or Out of Action.

FIG. 47


29·1
29·5
29·9
29·3
29·9
30·2
30·2

Sept. 19th 8 a.m.

SEPTEMBER, 1873

Plate LIV.

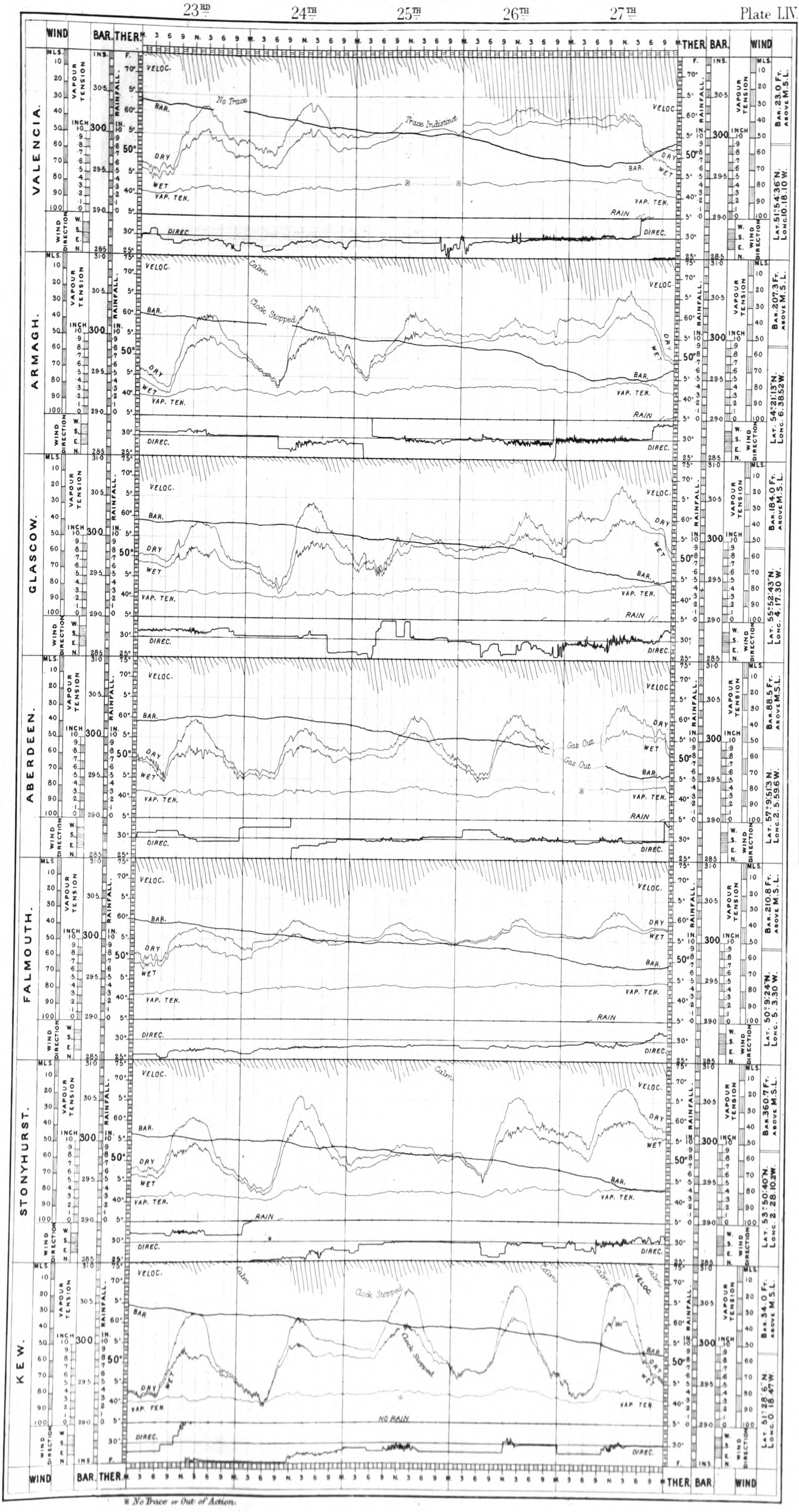
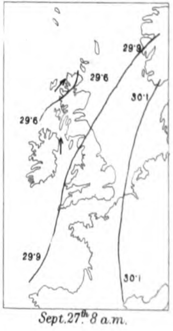


FIG. 48


29·9
29·6
30·1
29·8
29·9
30·1

Sept. 27th 8 a.m.

* No Trace or Out of Action.

SEPTEMBER & OCTOBER, _1873.

Plate LV.

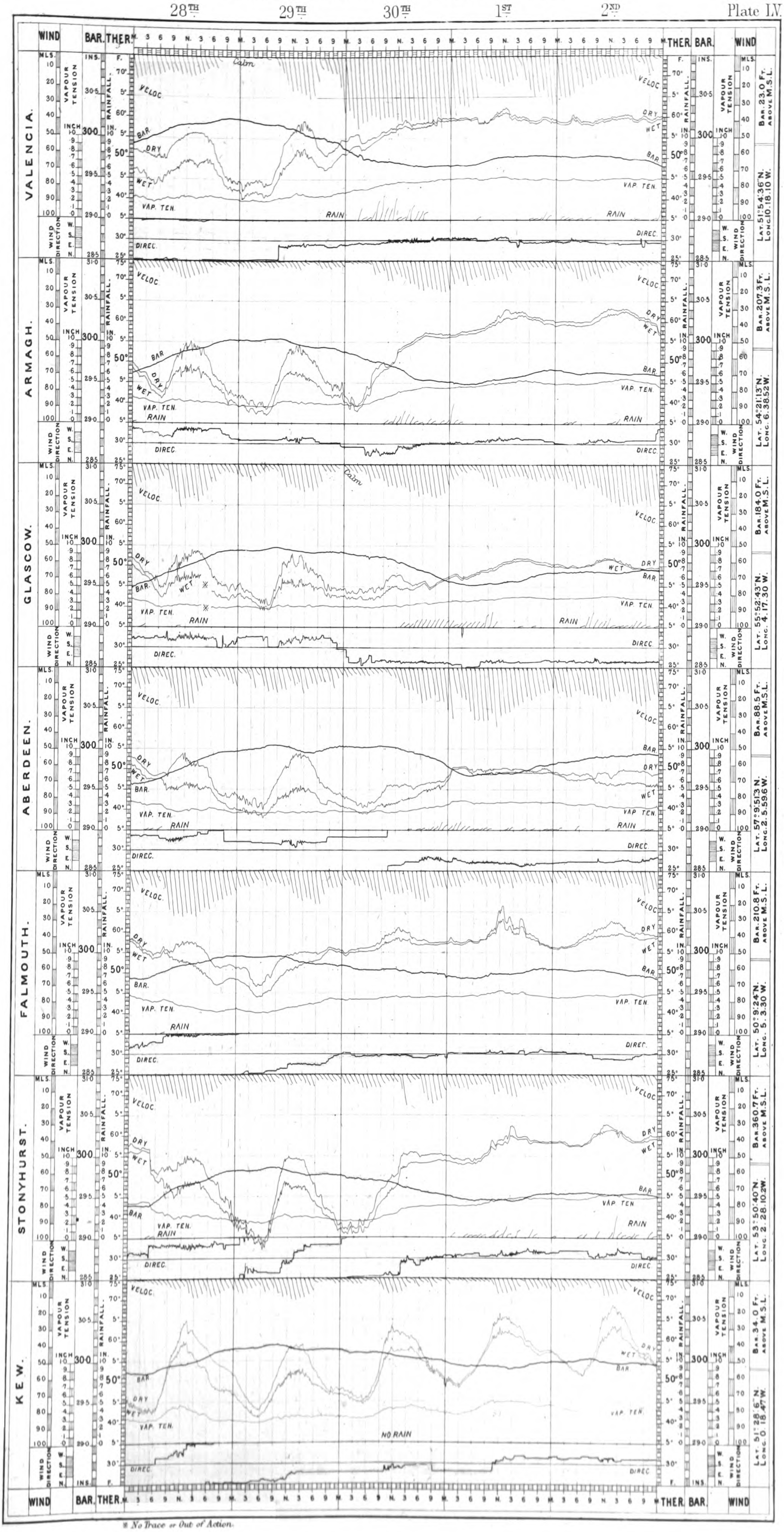
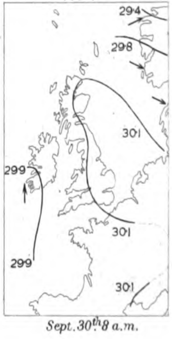


FIG. 49

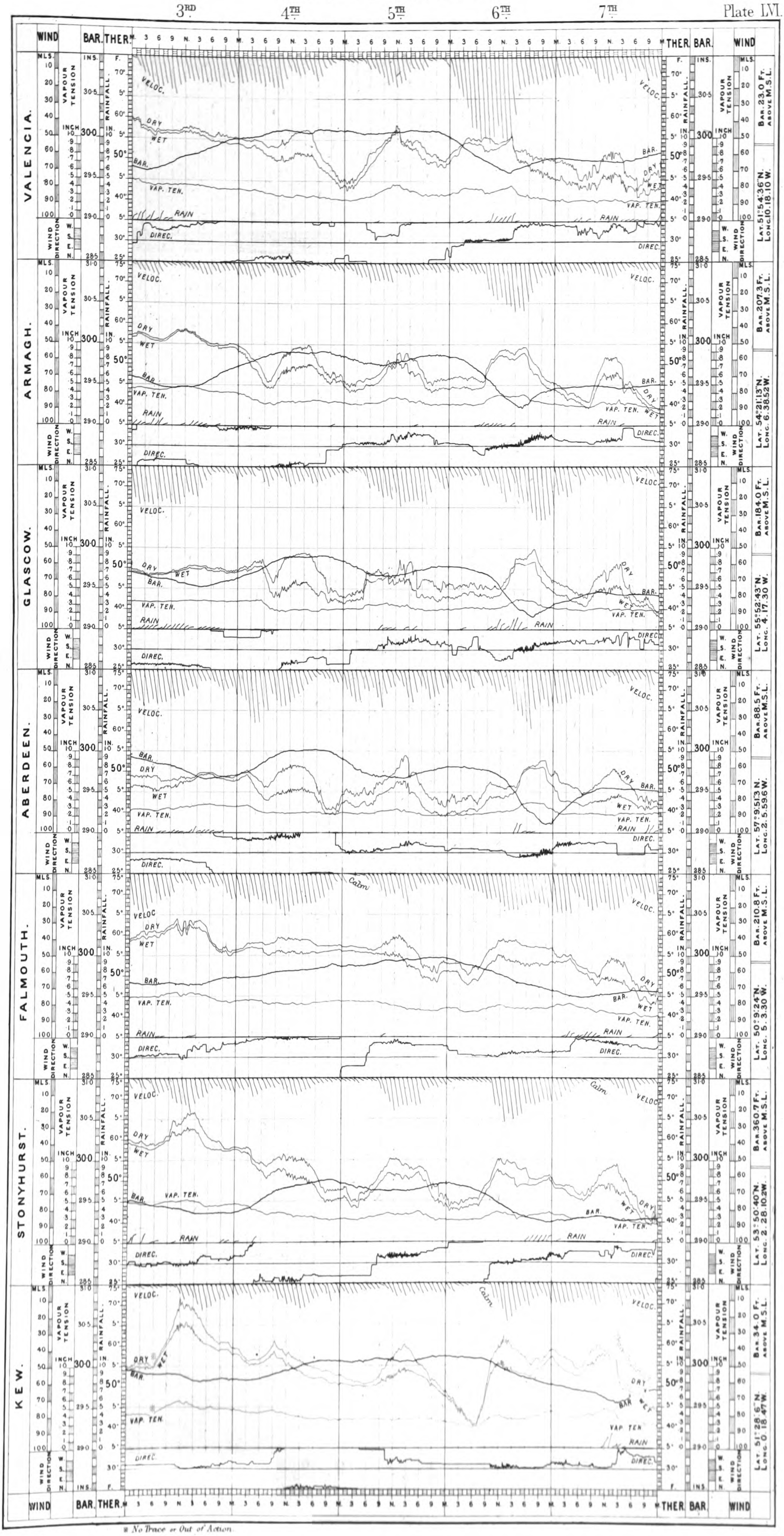

294
298
301
299
301
299
301

Sept. 30th 8 a.m.

※ *No Trace or Out of Action.*

OCTOBER, — 1873

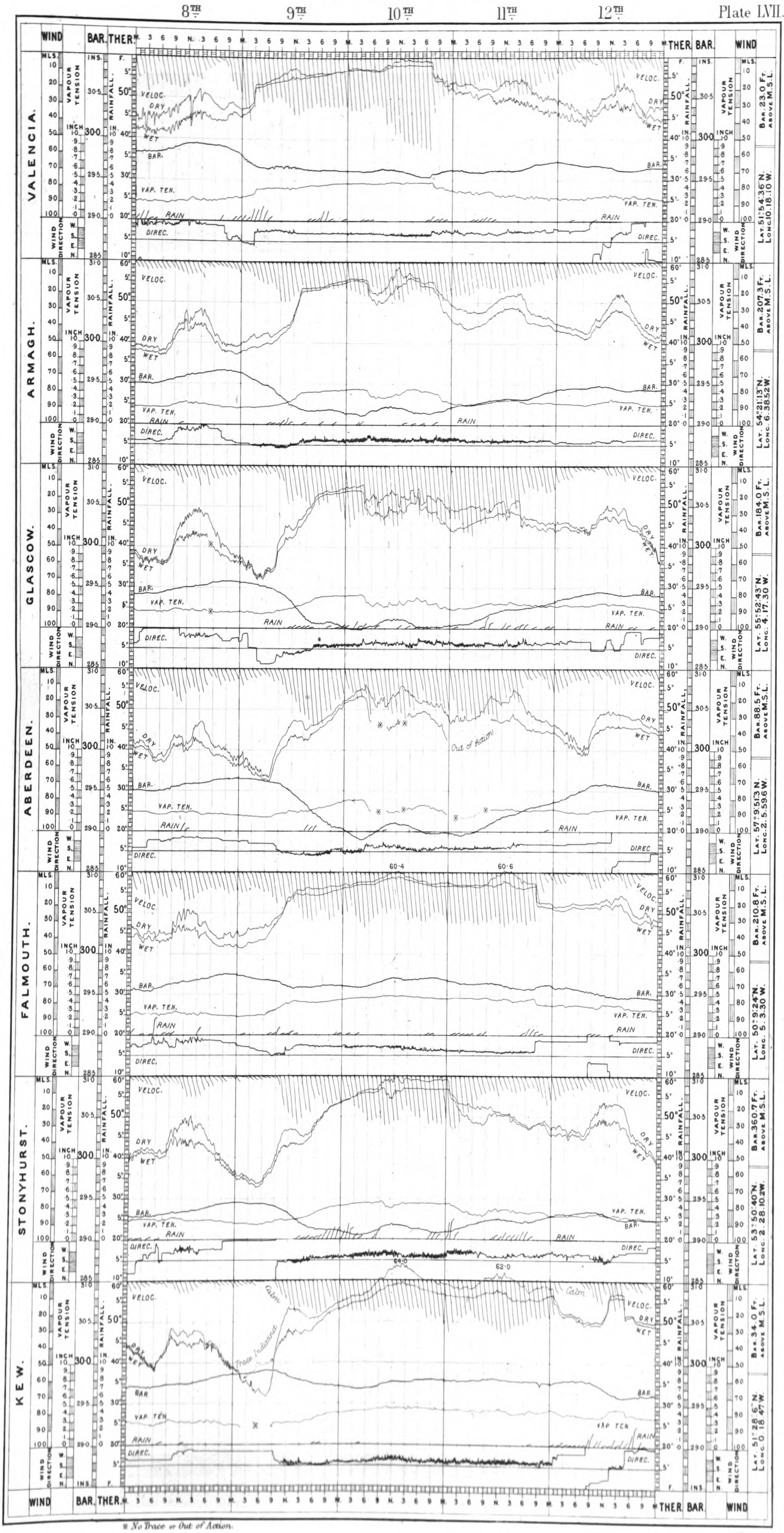
Plate LVI.



* No Trace or Out of Action.

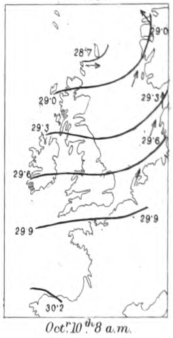
OCTOBER, — 1873.

Plate LVII.



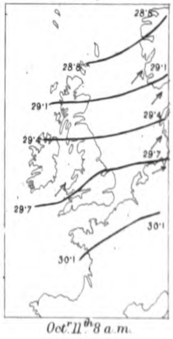
✻ No Trace or Out of Action.

FIG. 50


29·0
28·7
29·0
29·3
29·3
29·6
29·6
29·9
29·9
30·2

Octr 10th 8 a.m.

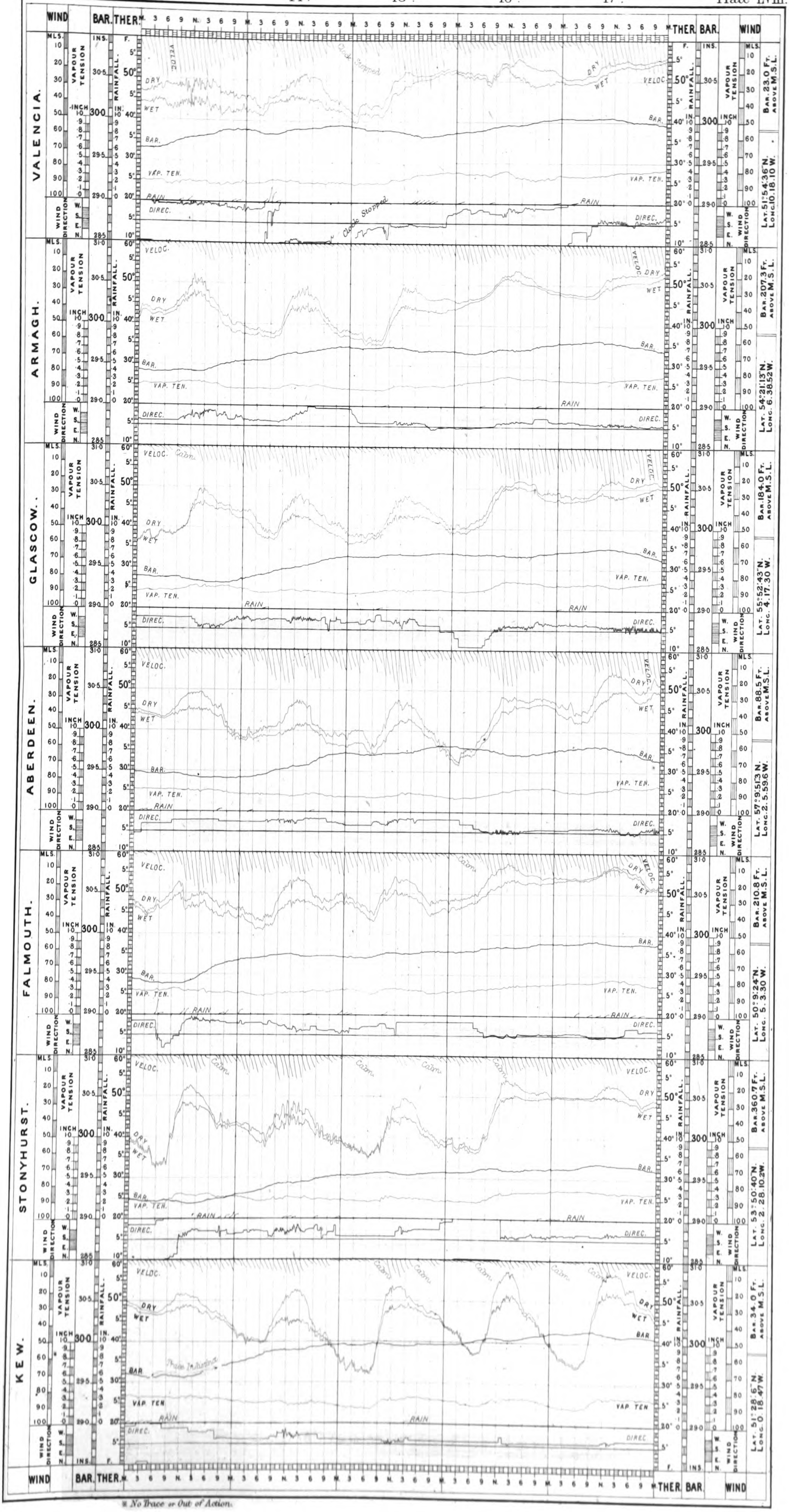
FIG. 51


28·8
28·8
29·1
29·1
29·4
29·4
29·7
29·7
30·1
30·1

Octr 11th 8 a.m.

OCTOBER, 1873

Plate LVIII.

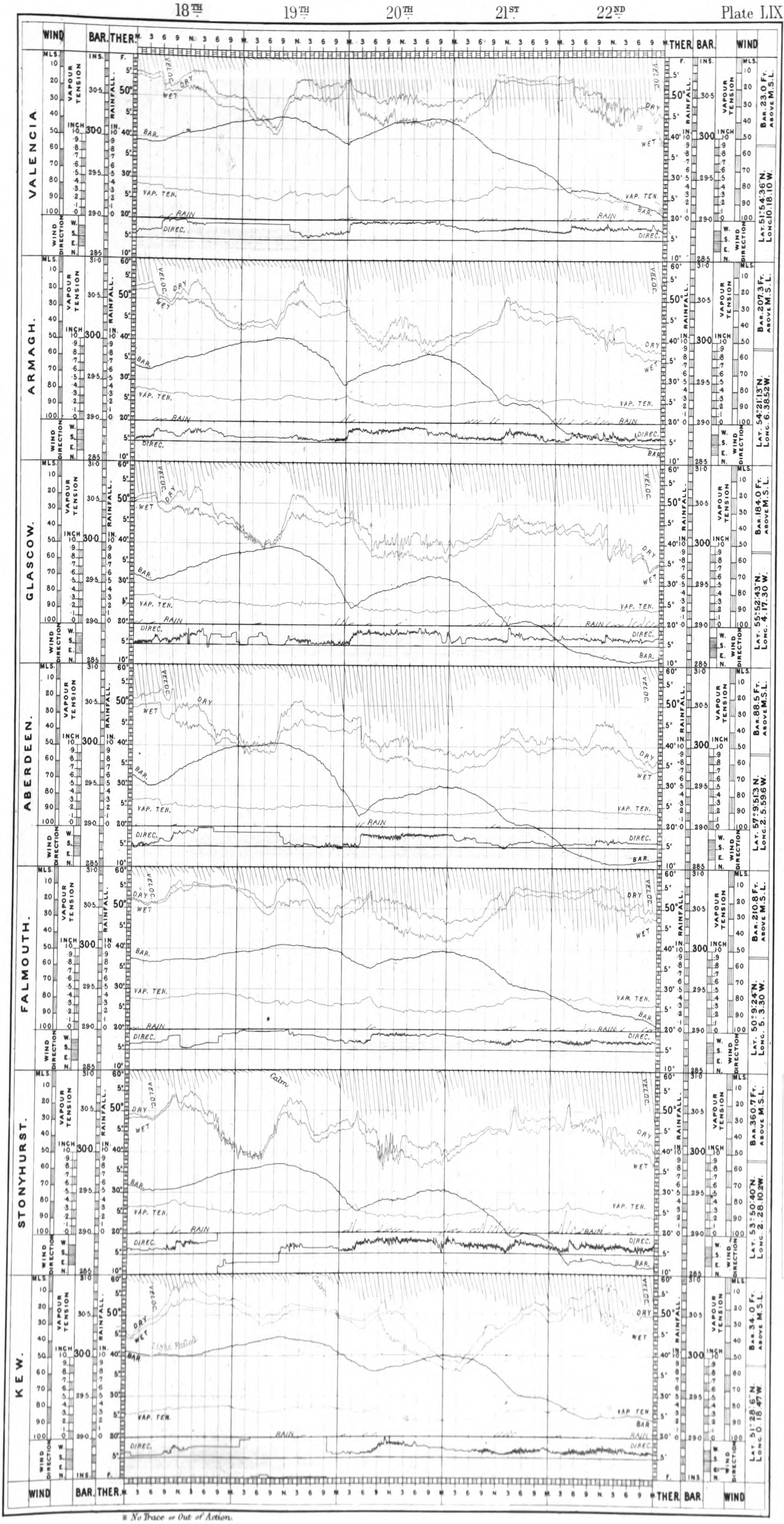


* No Trace or Out of Action.

Plate LIX.

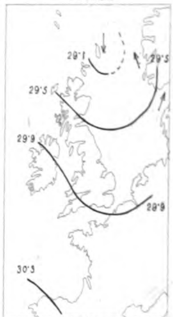
OCTOBER, — 1873.

18th 19th 20th 21st 22nd



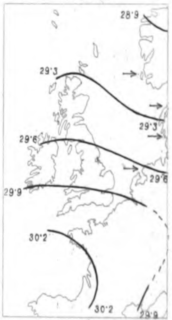
* No Trace or Out of Action.

FIG. 52


29·1
29·5
29·5
29·9
28·9
30·3

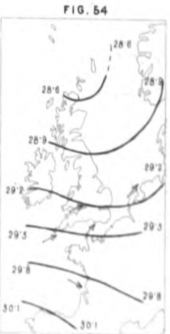
Octr. 20th 8 a.m.

FIG. 53


28·9
29·3
29·3
29·6
29·6
29·9
30·2
30·2
29·9

Octr. 21st 8 a.m.

FIG. 54


28·6
28·6
28·9
29·2
29·3
29·3
29·3
29·8
29·8
30·1
30·1

Octr. 22nd 8 a.m.

OCTOBER, 1873.

Plate LX.

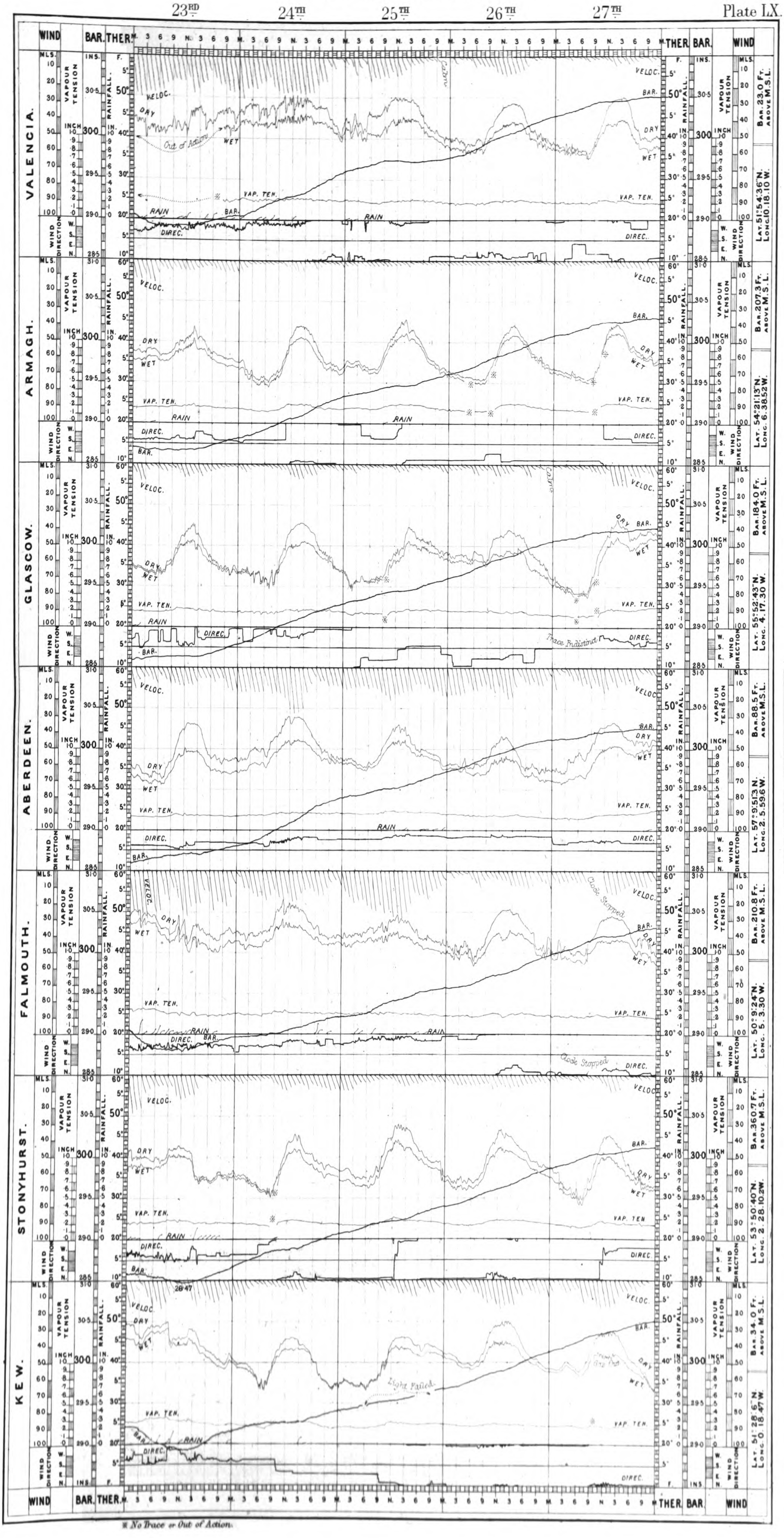
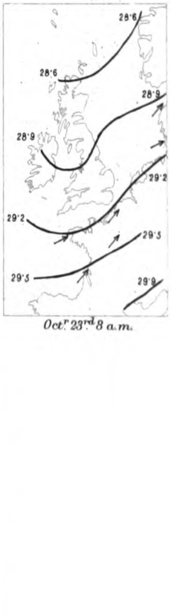


FIG. 55

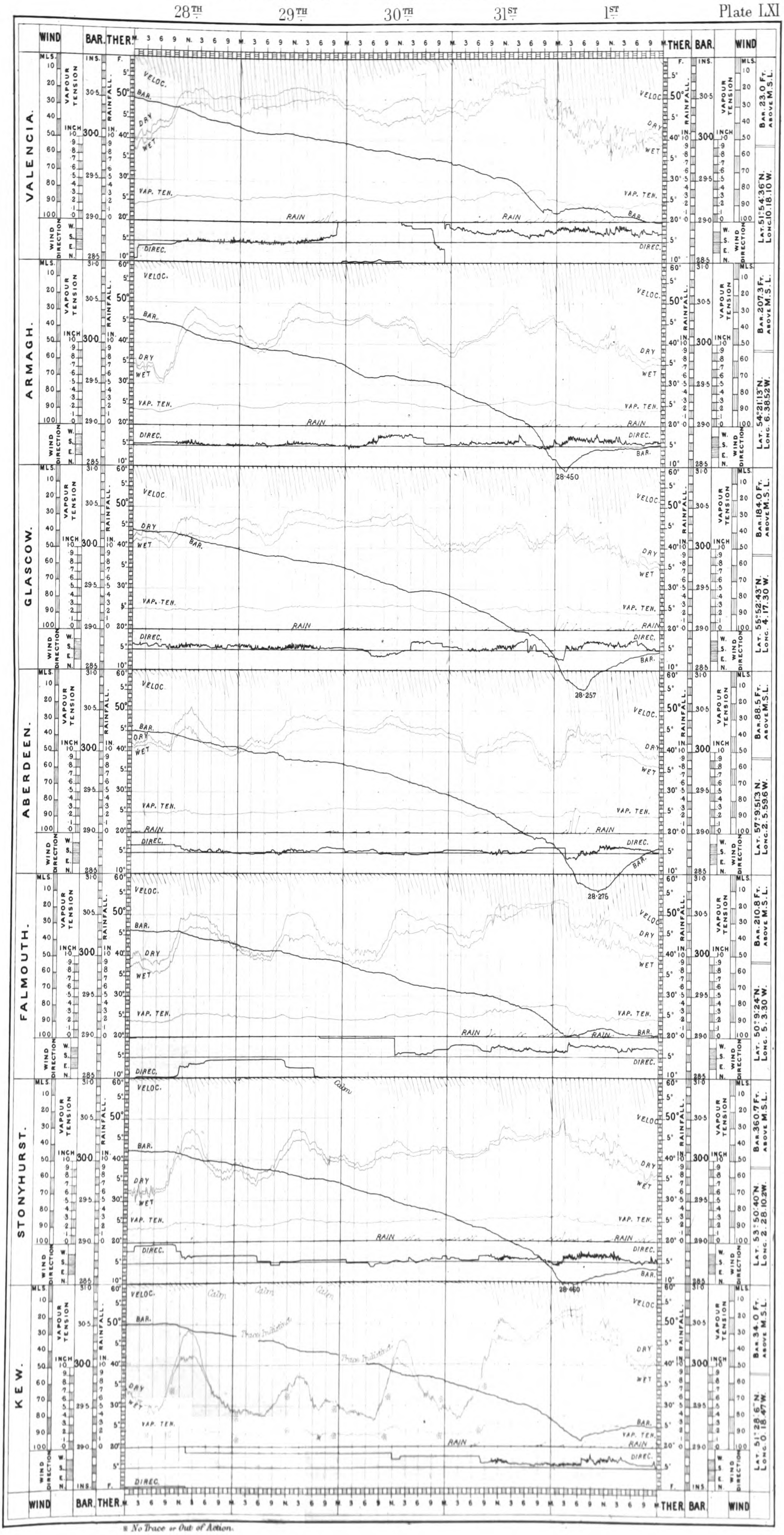

28·6
28·6
28·8
28·9
29·2
29·2
29·3
29·5
29·8

Oct. 23rd 8 a.m.

* No Trace or Out of Action.

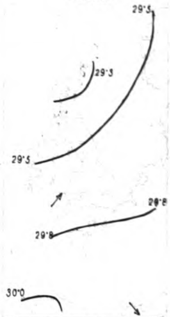
OCTOBER & NOVEMBER, _1873

Plate LXI



* No Trace or Out of Action.

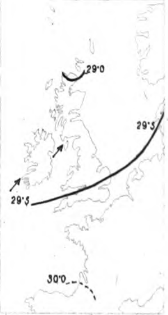
FIG. 56



29·5
29·3
29·5
29·8
29·8
30·0

Octr 31st 8 a.m.

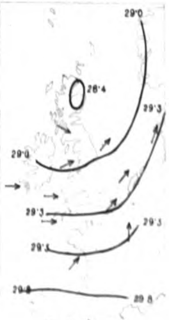
FIG 57



29·0
29·5
29·5
30·0

Octr 31st 6 p.m.

FIG. 58



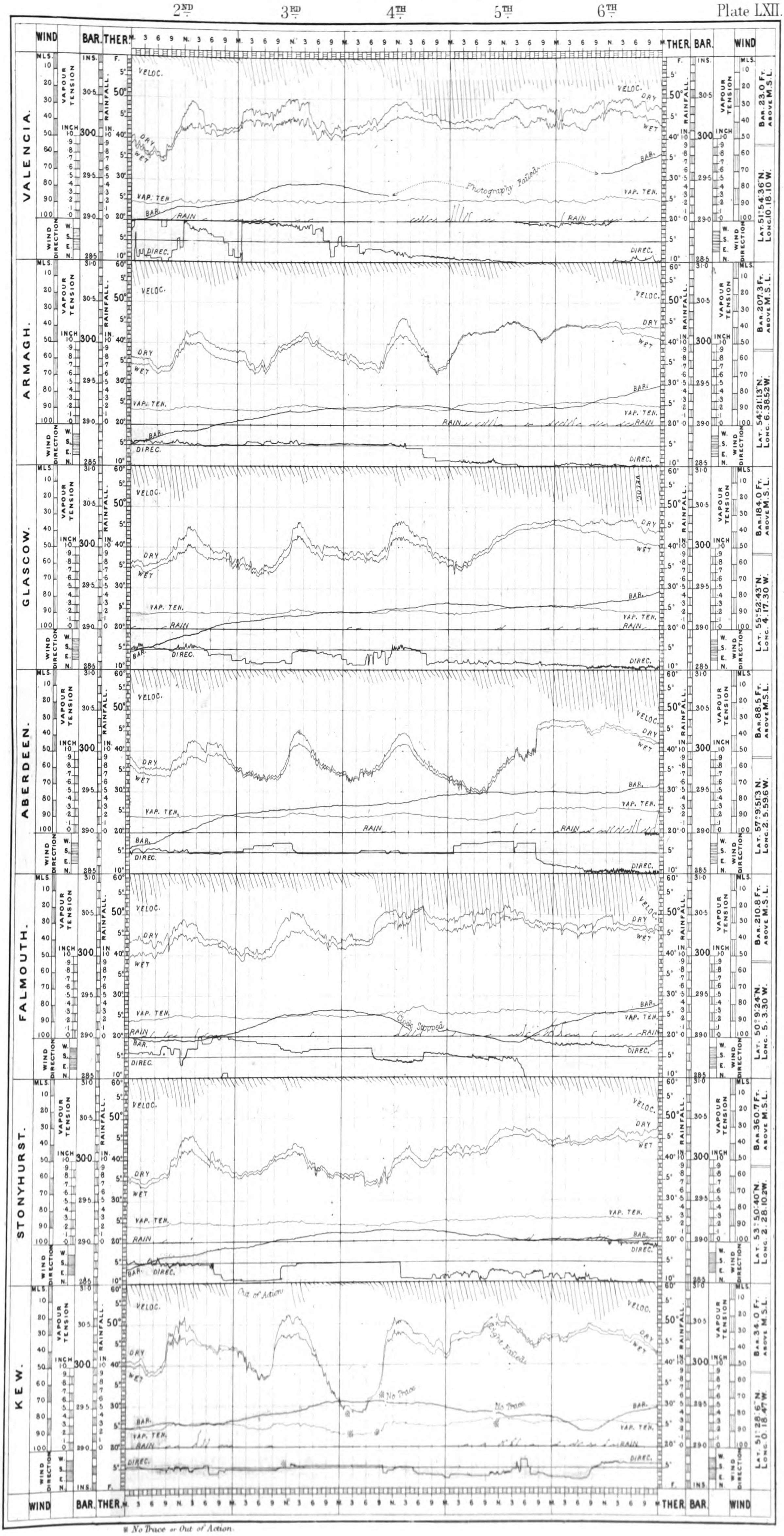
29·0
28·4
29·3
29·0
29·3
29·3
29·5
29·8
29·8

Novr 1st 8 a.m.

NOVEMBER. — 1873

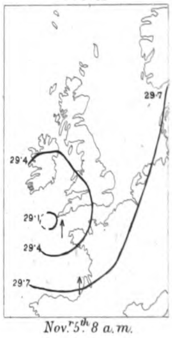
2ND 3RD 4TH 5TH 6TH

Plate LXII.



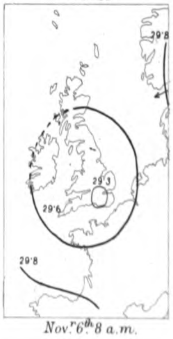
* No Trace or Out of Action.

FIG. 59


29.7
29.4
29.1
29.4
29.7

Nov.r 5th 8 a.m.

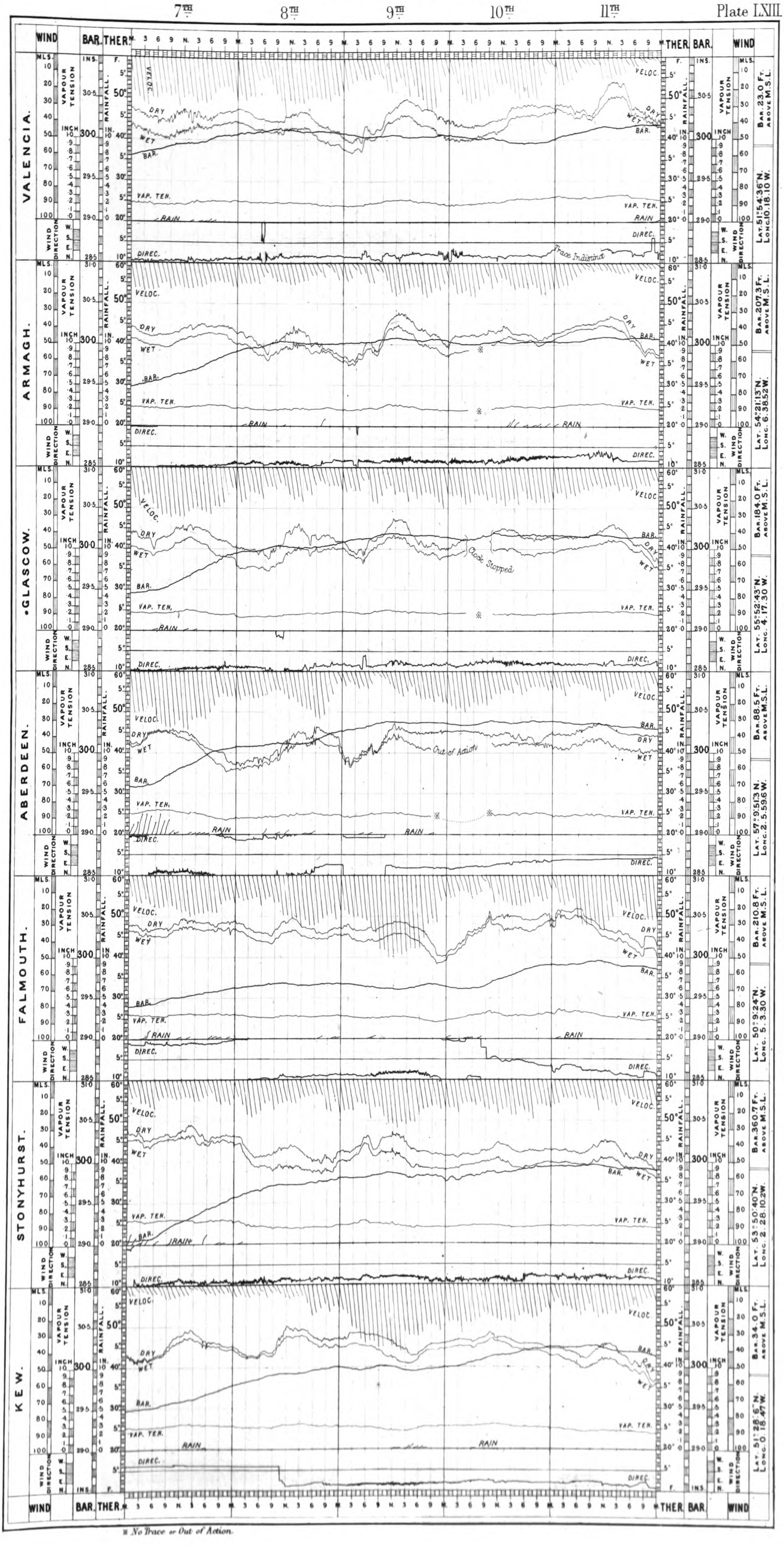
FIG. 60


29.8
29.3
29.6
29.8

Nov.r 6th 8 a.m.

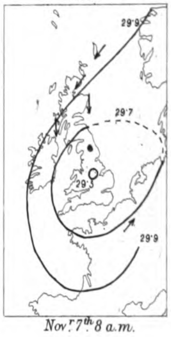
NOVEMBER, 1873

Plate LXIII



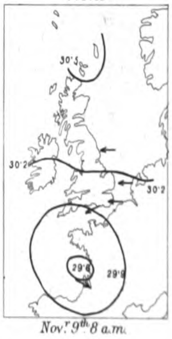
※ No Trace or Out of Action.

FIG. 61


29·8
29·7
29·
29·9

Nov.r 7th 8 a.m.

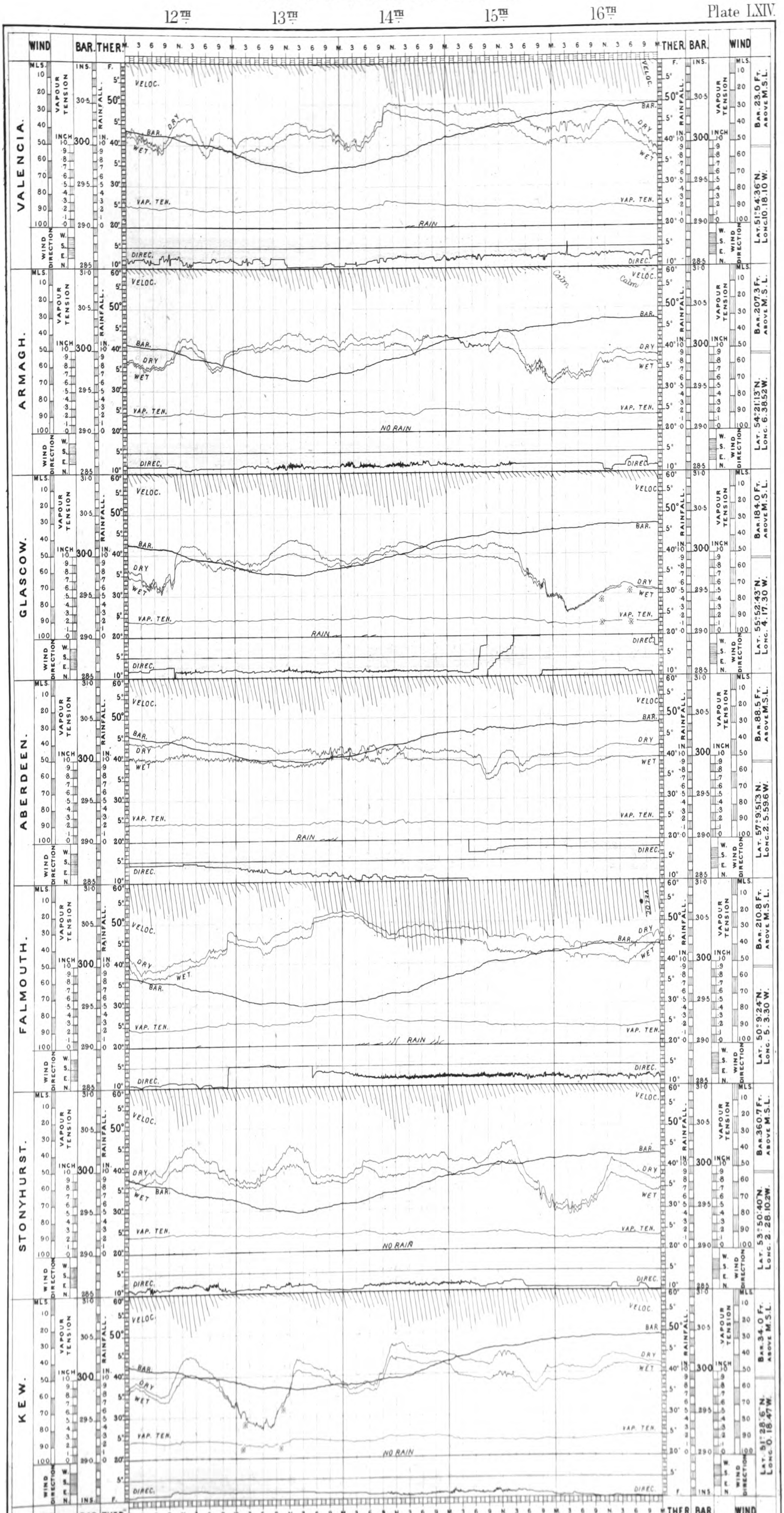
FIG. 62


30·5
30·2
30·2
29·6
29·8

Nov.r 9th 8 a.m.

NOVEMBER, — 1873

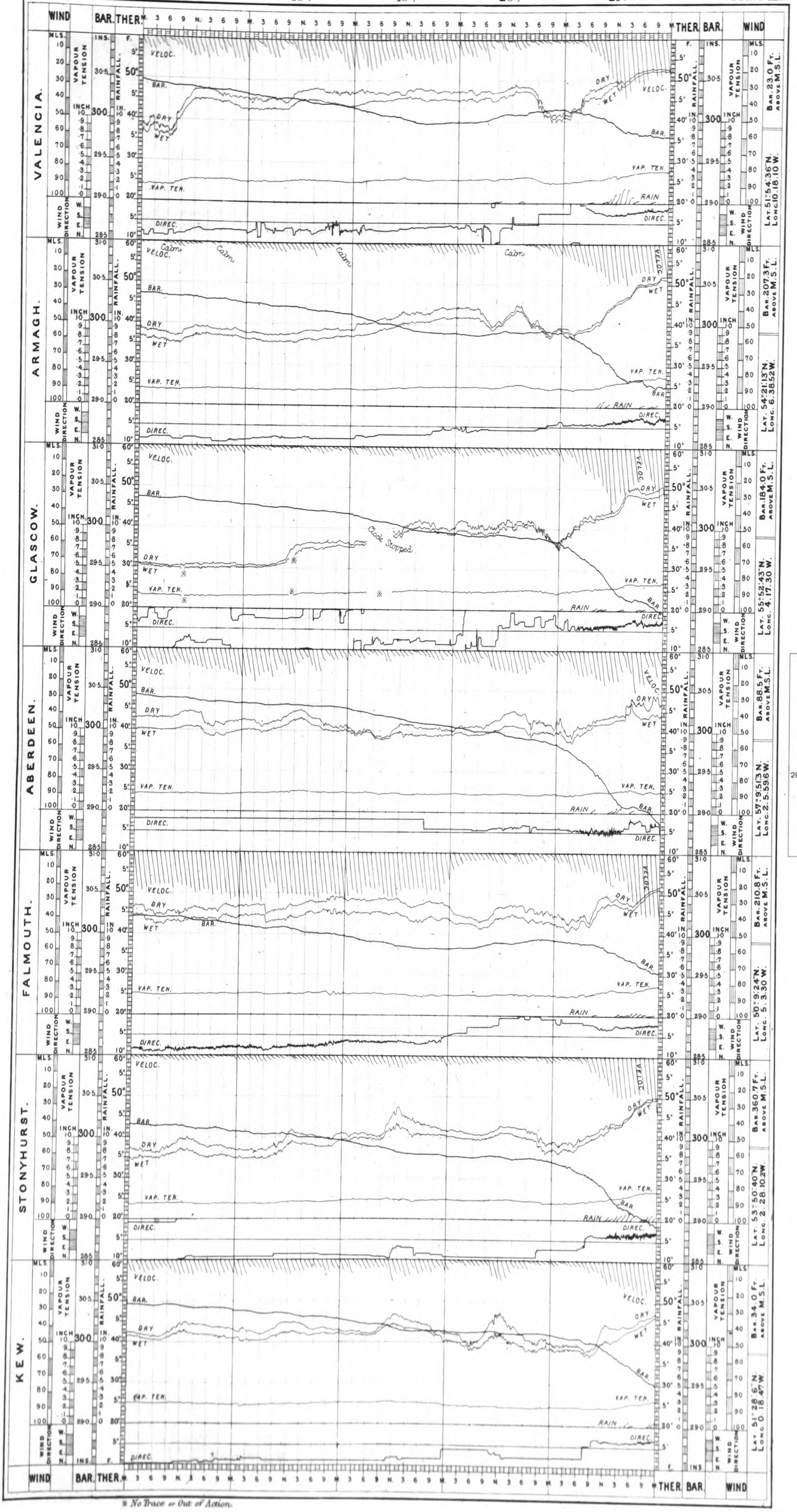
Plate LXIV.



* No Trace or Out of Action.

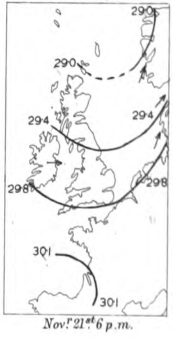
NOVEMBER, 1873

Plate LXV.



※ No Trace or Out of Action.

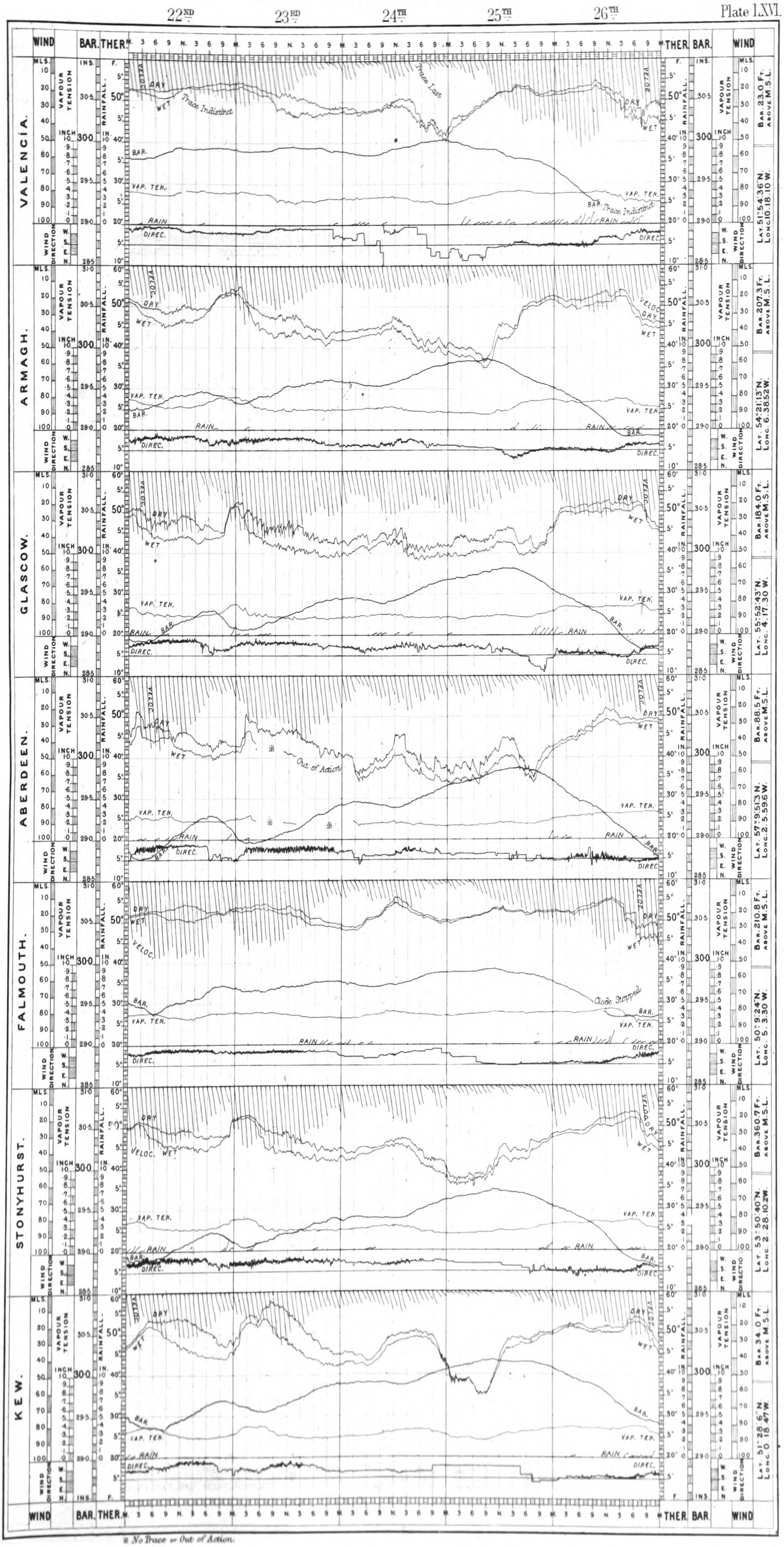
FIG. 63


29.0
29.4
29.8
30.1

Novr 21st 6 p.m.

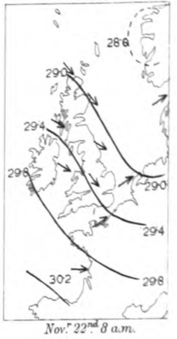
NOVEMBER, 1873

Plate LXVI.



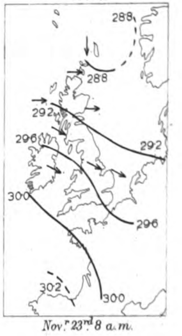
* No Trace or Out of Action.

FIG. 64


286
290
294
298
302

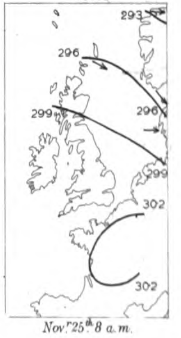
Novr. 22nd 8 a.m.

FIG. 65


288
292
296
300
302

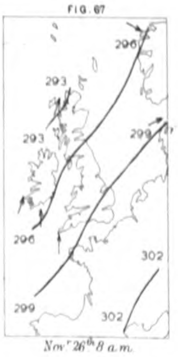
Novr. 23rd 8 a.m.

FIG. 66


293
296
299
302

Novr. 25th 8 a.m.

FIG. 67


296
293
299
302

Novr. 26th 8 a.m.

NOVEMBER & DECEMBER, — 1873.

Plate LXVII.

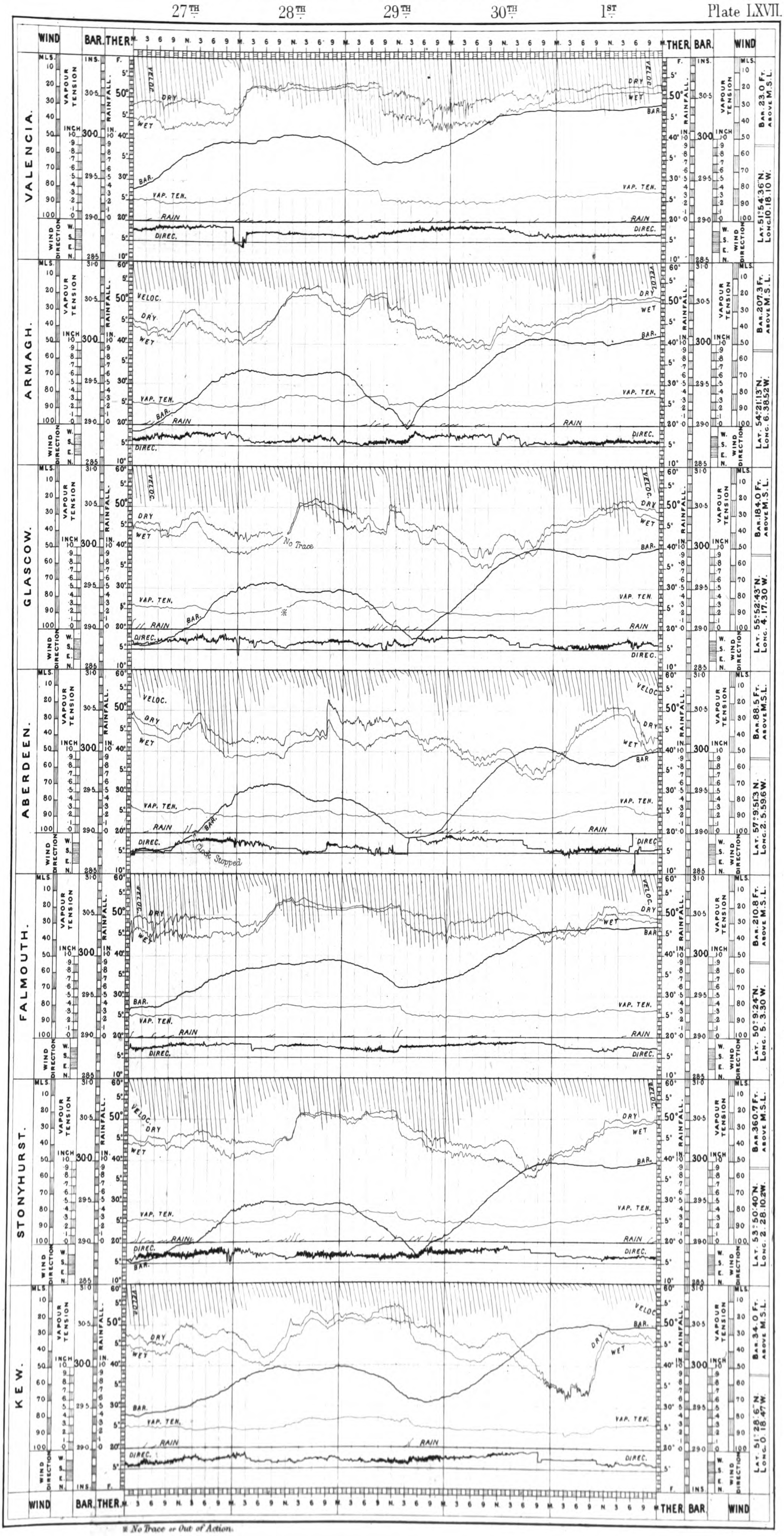
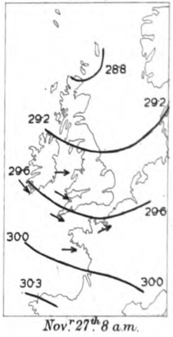


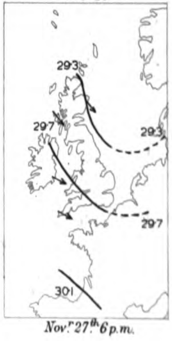
FIG. 68



288
292
292
296
296
300
300
303

Novr 27th 8 a.m.

FIG. 69



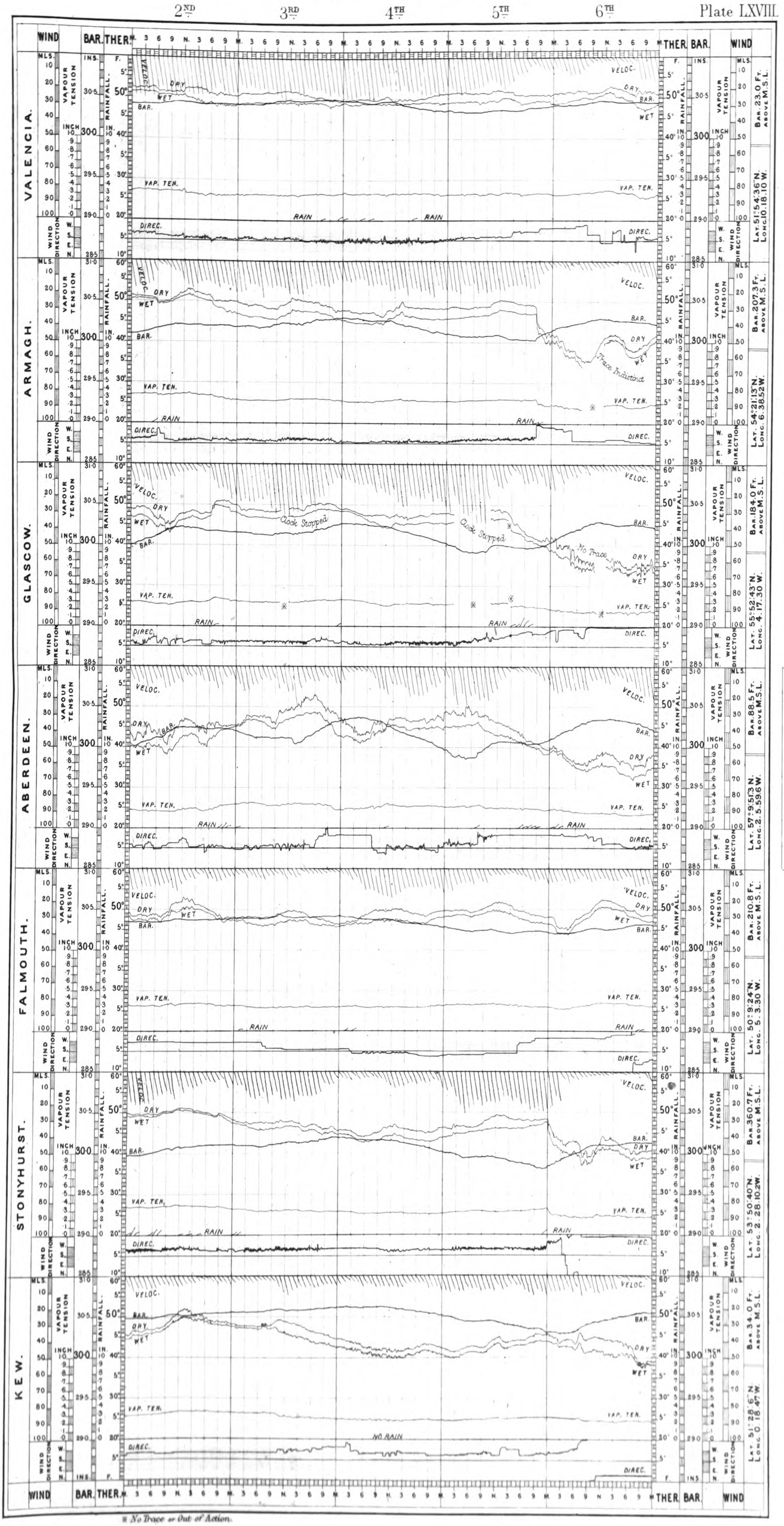
293
297
293
297
301

Novr 27th 6 p.m.

* No Trace or Out of Action.

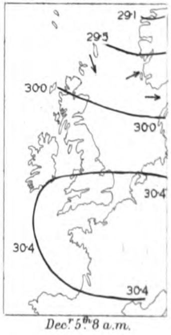
DECEMBER.—1873

Plate LXVIII.



✱ No Trace or Out of Action.

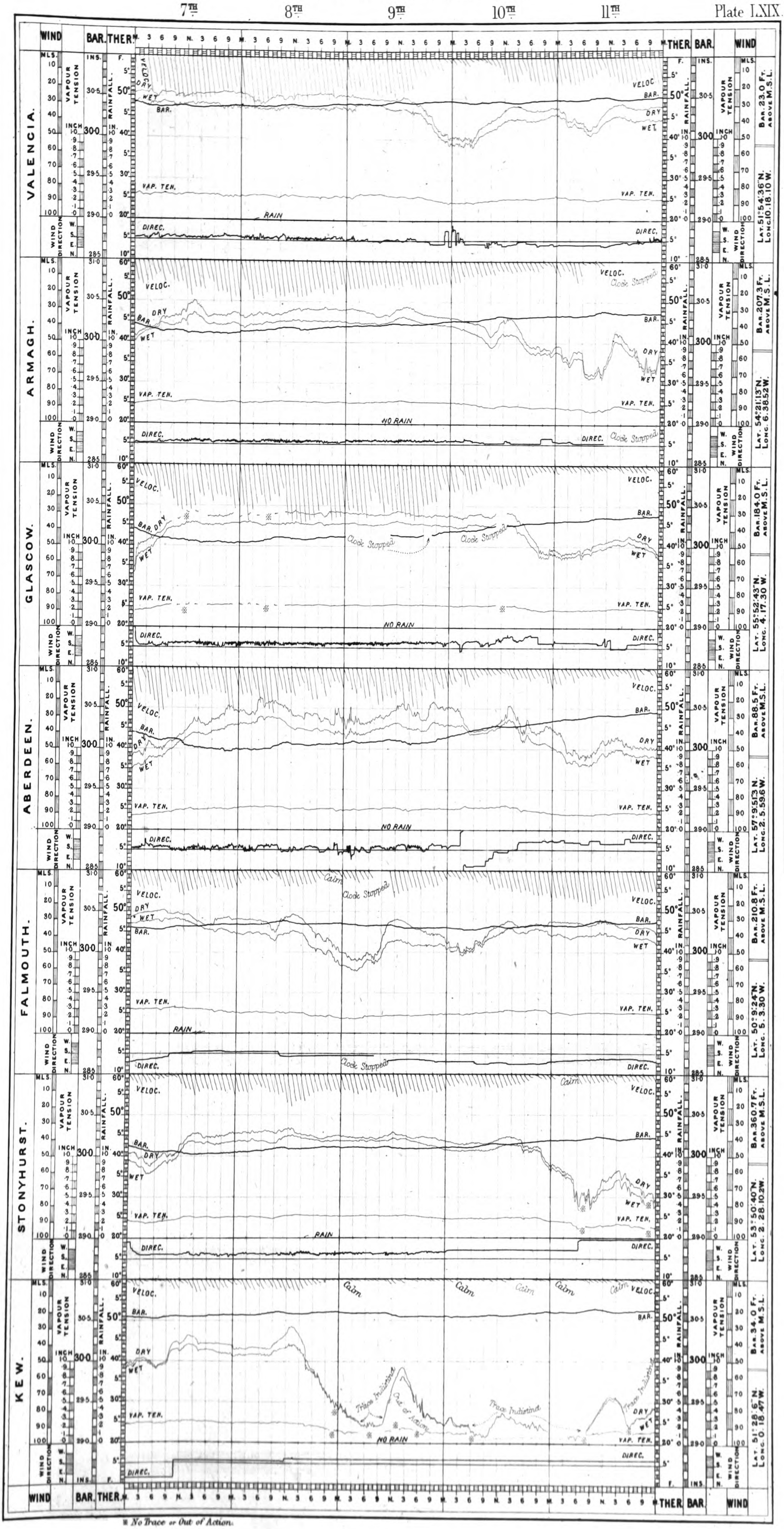
FIG. 70


29·1
29·5
30·0
30·0
30·4
30·4
30·4

Decr 5th 8 a.m.

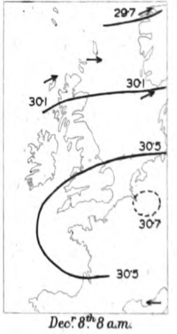
DECEMBER, 1873

Plate LXIX.



* No Trace or Out of Action.

FIG. 71


29.7
30.1
30.1
30.5
30.7
30.5

Decr. 8th 8 a.m.

DECEMBER, — 1873.

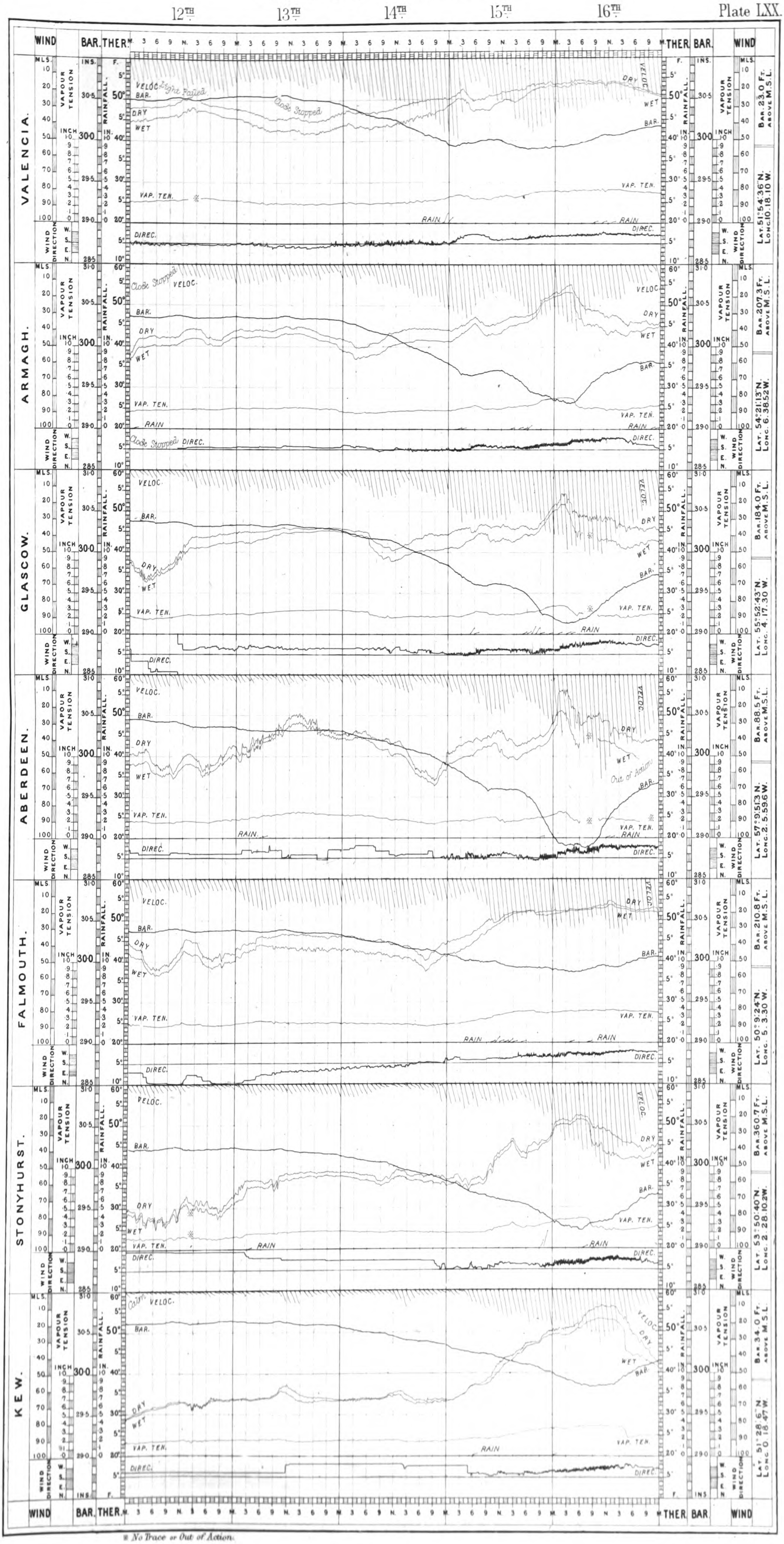
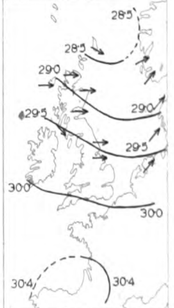


FIG. 72


28.5
29.0
29.5
30.0
30.4

Decr. 16th 8 a.m.

* No Trace or Out of Action.

DECEMBER, 1873.

Plate LXXI.

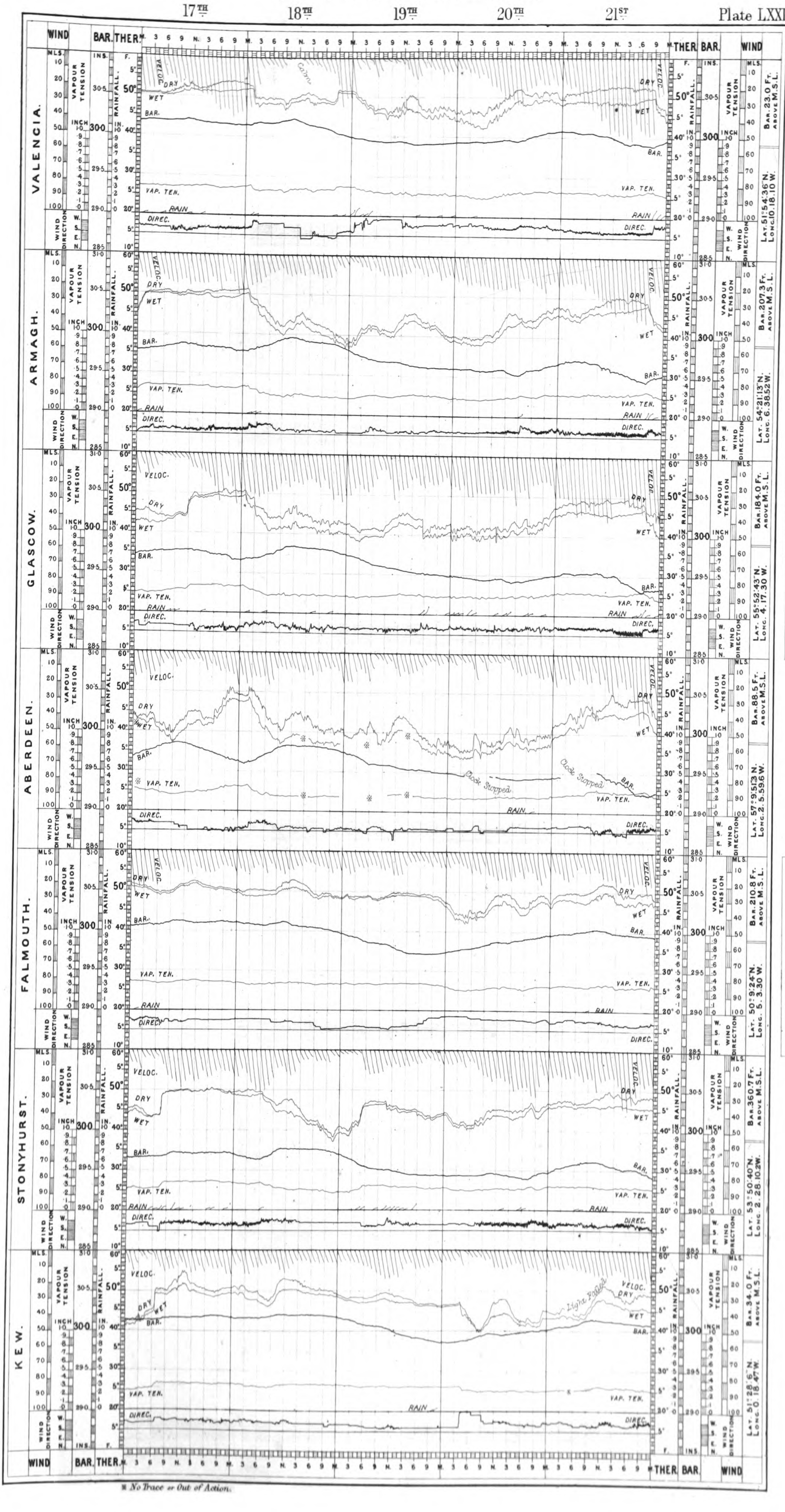
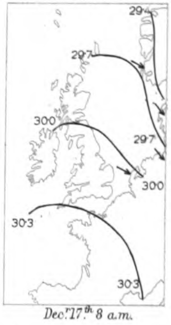
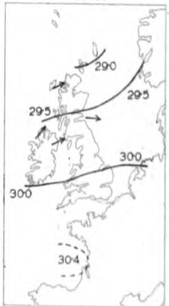


FIG. 73


29·4
29·7
30·0
29·7
30·0
30·3
30·3

Decr. 17th 8 a.m.

FIG. 74

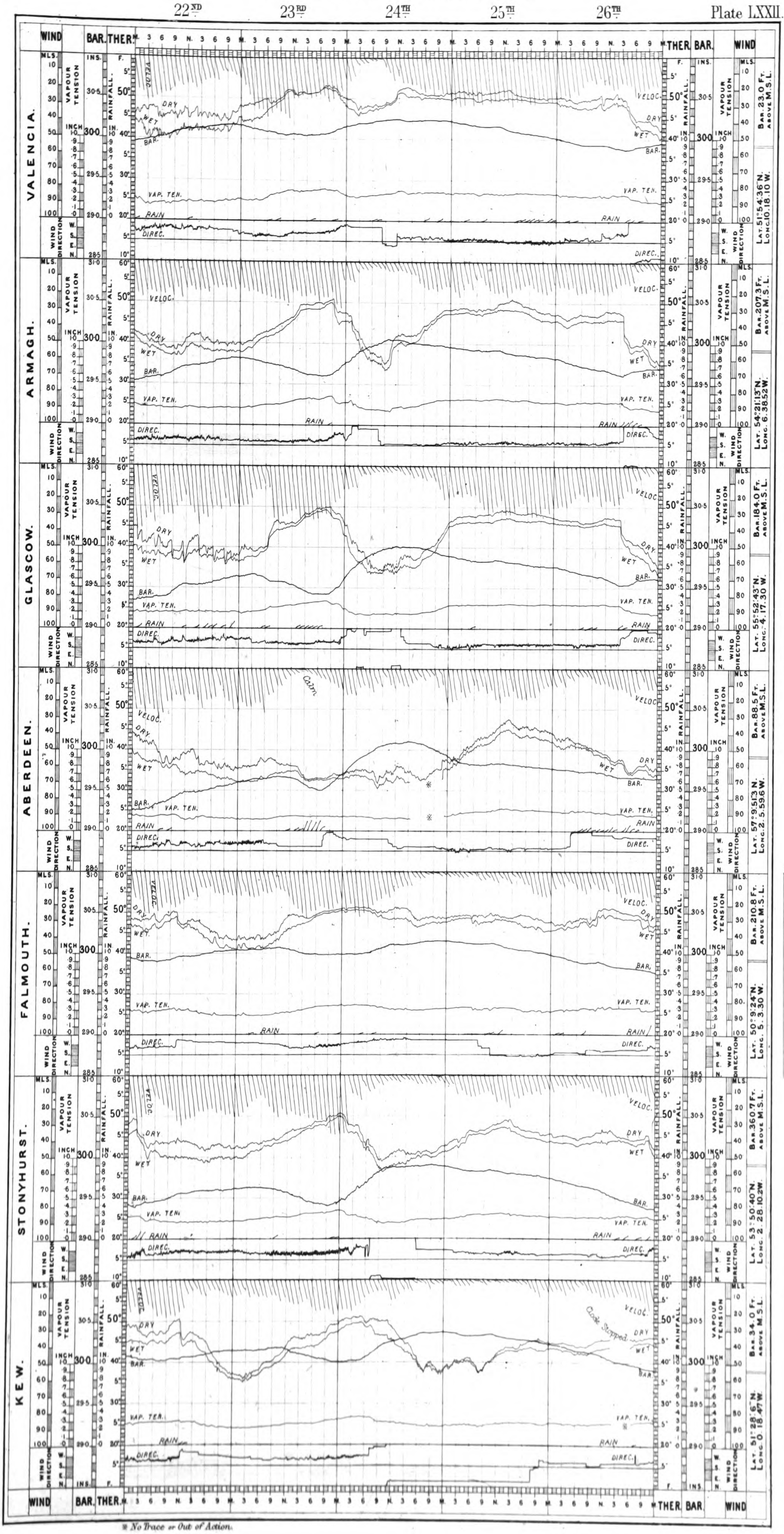

29·0
29·5
29·5
30·0
30·0
30·4

Decr. 21st 6 p.m.

* No Trace or Out of Action.

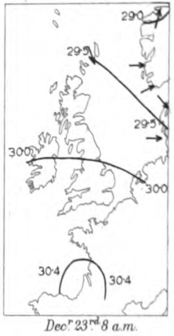
DECEMBER, 1873.

Plate LXXII.



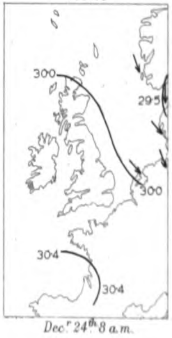
* No Trace or Out of Action.

FIG. 75


29.0
29.5
29.5
30.0
30.0
30.4
30.4

Decr 23rd 8 a.m.

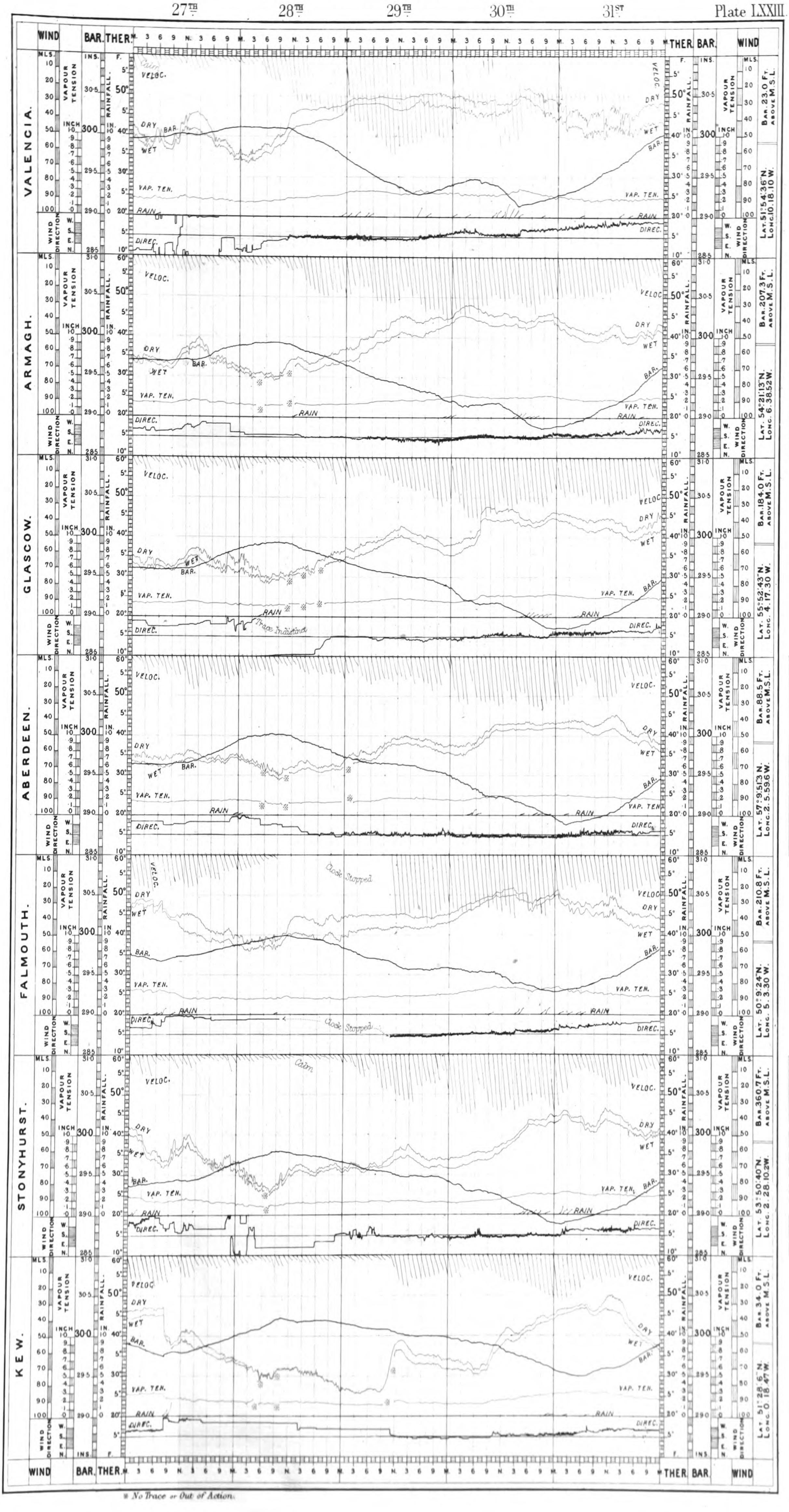
FIG. 76


30.0
29.5
30.0
30.4
30.4

Decr 24th 8 a.m.

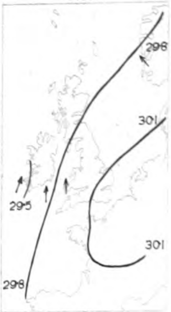
DECEMBER, — 1873

27th 28th 29th 30th 31st Plate LXXIII



* No Trace or Out of Action.

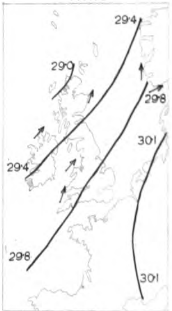
FIG. 77



29·8
30·1
29·5
30·1
29·8

Decr. 29th 8 a.m.

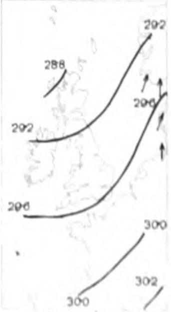
FIG. 78



29·4
29·0
29·8
30·1
29·4
29·8
30·1

Decr. 30th 8 a.m.

FIG. 79



29·2
28·8
29·6
29·2
29·6
30·0
30·2
30·0

Decr. 31st 8 a.m.